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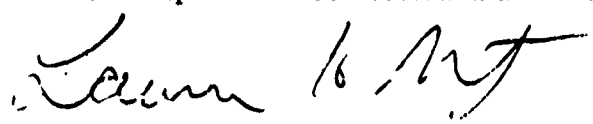

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This volume of the User's Manual for the Strategic Satellite System Terminal Segment Life Cycle Cost Model contains listings of the FORTRAN source code for the three programs comprising the Model. These three programs are the Preprocessor, the LCC Program, and the RLA program.

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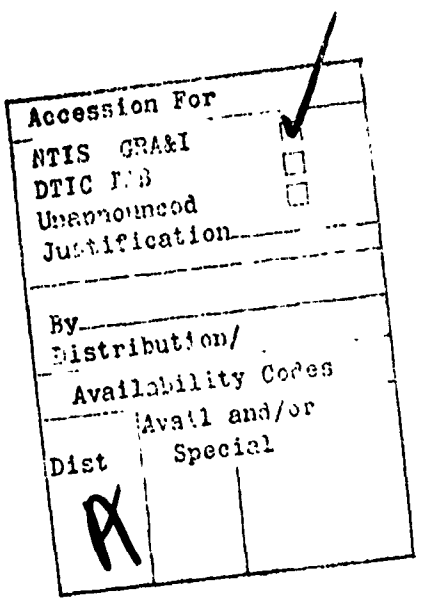
The authors wish to express their appreciation to the many people who played a role in the derivation of the Strategic Satellite System Terminal Segment Life Cycle Cost Model.

The Model is comprised of three programs: the Preprocessor, the LCC Program, and the RLA Program. The LCC Program, the heart of the Model, is actually a third generation AUTOLCC model. The original version was designed and implemented by Dick Moynihan and Joyce Calabro. The second version was modified by Josh Seeger and C. C. Cho. Mary Jean Hayes implemented this version.

The third and current version was designed by the authors and coded by Joyce Calabro, Sharon Rawls, and Lucille Record. The RLA Program was designed and implemented by C. C. Cho and Mary Jean Hayes.



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APPENDIX D

PREPROCESSOR FORTRAN SOURCE CODE

```
C     ********************************************************************************
C     *                SSS LCC MODEL PREPROCESSOR                                    *
C     *                                                                              *
C     *     THIS PREPROCESSOR PERFORMS TWO BASIC FUNCTIONS:                          *
C     *                                                                              *
C     * 1)  CREATING AN ITEM-IN-PLATFORM MATRIX IN UNIT 21 GIVEN:                    *
C     *        LRU-IN-PLATFORM MATRIX (UNIT 25) AND                                  *
C     *        SRU-IN-LRU MATRIX (UNIT 26).                                          *
C     * 2)  CHECKING UNITS 18,19,20,22,25 AND 26 FOR INPUT FILE                      *
C     *     FORMAT ERRORS.  IN PARTICULAR, THE FOLLOWING ERROR                       *
C     *     CONDITIONS ARE CHECKED FOR:                                              *
C     *                                                                              *
C     *       - MULTIPLE CARDS FOR AN ITEM NUMBER                                    *
C     *       - MORE ITEMS IN A FILE THAN IN THE INITIAL FILE                        *
C     *       - ITEMS NOT APPEARING IN THE INITIAL ITEM FILE BUT                     *
C     *           FOUND IN OTHER FILES                                               *
C     *       - FEWER ITEMS IN A FILE THAN IN THE INITIAL FILE                       *
C     *       - ITEMS NOT APPEARING IN A FILE BUT NOT FOUND IN THE                   *
C     *           INITIAL FILE                                                       *
C     *       - SRU ITEMS IN LRU ITEM LISTS                                          *
C     *       - LRU ITEMS IN SRU ITEM LISTS                                          *
C     *       - ITEM NUMBERS OUT OF SEQUENCE IN A FILE                               *
C     *       - ITEM INDICIES OUT OF RANGE                                           *
C     *       - MORE THAN THE MAXIMUM NUMBER OF ITEMS IN THE INITIAL                 *
C     *           FILE                                                               *
C     *       - MORE THAN THE MAXIMUM NUMBER OF SRUS IN AN LRU IN                    *
C     *           THE LRU/SRU CROSS REFERENCE FILE (UNIT 12)                         *
C     *       - END OF FILE FOUND BEFORE THE END OF THE SRU LIST                     *
C     *           FOR AN LRU IN THE LRU/SRU CROSS REFERENCE FILE                     *
C     *       - MISSING END-OF-FILE MARKER IN A FILE                                 *
C     *                                                                              *
C     ********************************************************************************

      COMMON ITEM(999,2),NERR,YET(999),LASTI,MAXI
      LOGICAL ITEM,YET,WROTE
      REAL NITEM(999,12),INPVEC(28),XCOL1,QPA(50)
      INTEGER INITEM(12)
      INTEGER I,IL,ILOOP,NDS,K,NP,LRU,NUMITM,NUMLRU,ISRU(50)
      INTEGER NERR,LASTI,MAXI,MAXNDS,NRM,IRM,NRMM1,IPAGE
      DATA STAR/1H*/,BLANK/1H /
```

```
1     FORMAT(A1,I3,39X,I2)
2     FORMAT(A1,I3,12F4.2)
3     FORMAT(A1)
4     FORMAT(A1,I3,I2,14(I3,F2.0))
5     FORMAT(A1,I3)
6     FORMAT(/24H PROCESSING COMPLETED.  ,I3,17H ERRORS DETECTED.)
7     FORMAT(/49H OUTPUT FILE (ITEMS IN PLATFORMS) NOT WRITTEN DUE/
     +17X,10HTO ERRORS./)
8     FORMAT(/53H OUTPUT FILE (ITEMS IN PLATFORMS) WRITTEN TO UNIT 21./)
9     FORMAT(/1H ,I3,10H LRUS AND ,I3,29H SRUS READ FROM INITIAL FILE.)
10    FORMAT(/41H SSS LCC PREPROCESSOR -- EXECUTION BEGINS)
11    FORMAT(A1,I3,12I4)
12    FORMAT(1H ,I5,12F7.2)
13    FORMAT(1H1////////////////////
     +44X,44H**********************************************************/
     +44X,1H*,42X,1H*/
     +44X,44H*         SSS LIFE CYCLE COST MODEL        */
     +44X,44H*              PREPROCESSOR                */
     +44X,1H*,42X,1H*/
     +44X,44H**********************************************************/)
14    FORMAT(1H1,6X,44H PREPROCESSOR INPUT FILE:  DATA FILE 11B -- ,
     +35HLRU ITEM CONFIGURATION ON PLATFORMS///)
15    FORMAT(1H1,4X,45H PREPROCESSOR OUTPUT FILE:  DATA FILE 11A -- ,
     +31HITEM CONFIGURATION ON PLATFORMS///)
16    FORMAT(A1,I3,I2,I2)
17    FORMAT(A1,5X,14(I3,F2.0))
18    FORMAT(1H1/30X,70HPREPROCESSOR INPUT FILE:  DATA FILE 8B -- LRU/SR
     +U CROSS REFERENCE DATA)
19    FORMAT(59X,11H(CONTINUED)//)
20    FORMAT(//9X,4H#SRU,4X,12HSRU    SRU  ,3X,12HSRU    SRU  ,3X,12HSRU
     +    SRU  ,3X,12HSRU    SRU  ,3X,12HSRU    SRU  ,3X,12HSRU    SRU
     +,3X,12HSRU    SRU  /1X,3HLRU,5X,5HTYPES,3X,12HINDEX  QUAN-,3X,12HI
     +NDEX  QUAN-,3X,12HINDEX  QUAN-,3X,12HINDEX  QUAN-,3X,12HINDEX  QUA
     +N-,3X,12HINDEX  QUAN-,3X,12HINDEX  QUAN-/1X,5HINDEX,3X,6HIN LRU,2X
     +,12HNO.    TITY ,3X,12HNO.    TITY ,3X,12HNO.    TITY ,3X,12HNO.
     +  TITY ,3X,12HNO.    TITY ,3X,12HNO.    TITY ,3X,11HNO.    TITY/1X
     +,4H(IL),4X,5H(NDS),3X,12H(ISRU) (QPA),3X,12H(ISRU) (QPA),3X,12H(IS
     +RU) (QPA),3X,12H(ISRU) (QPA),3X,12H(ISRU) (QPA),3X,12H(ISRU) (QPA)
     +,3X,12H(ISRU) (QPA)//)
21    FORMAT(2X,I3,5X,I3,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3
     +,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0/18X,I3,3X,F4.0,
     +5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F
     +4.0,5X,I3,3X,F4.0)
22    FORMAT(18X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3
     +,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0/18X,I3,3X,F4.0,
     +5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F
     +4.0,5X,I3,3X,F4.0)
```

```
C     PLEASE ANNOUNCE US

      WRITE(7,13)
      WRITE(6,10)

C     READ IN THE INITIAL DATA FROM UNIT 18

      REWIND 18
      LASTI=0
      DO 50 ILOOP=1,MAXI
         READ(18,1) XCOL1,I,LRU
         IF(XCOL1.EQ.STAR) GO TO 100
         IF (I.GT.0.AND.I.LE.MAXI) GO TO 40

C        ITEM INDEX OUT OF RANGE.  NOTIFY AND SKIP TO NEXT CARD

            CALL ERROR(8,I,18)
            GO TO 50
40       CONTINUE

         ITEM(I,1)=.TRUE.

C        CHECK IF THIS ITEM IS AN LRU.  IF SO, MARK AND COUNT IT

         IF(LRU.NE.1) GO TO 45
            ITEM(I,2)=.TRUE.
            IF (.NOT.YET(I)) NUMLRU=NUMLRU+1

45       CONTINUE

         IF (.NOT.YET(I)) NUMITM=NUMITM+1
         CALL CHECK1(I,18)

50    CONTINUE

C     IF WE GET HERE THEN THERE WERE TOO MANY RECORDS IN THE FILE

      CALL ERROR(11,0,18)

100   CONTINUE

      I=NUMITM-NUMLRU
      WRITE(6,9) NUMLRU,I

C     READ IN THE LRU IN PLATFORM MATRIX
```

```
23    FORMAT(7H   ITEM,16X,40HAVERAGE NUMBER OF LRU ITEMS INSTALLED ON,
     +14H PLATFORM TYPE/,8H   INDEX,15X,50(1H-)/,7H    (I),I4,11I7//)
24    FORMAT(7H   ITEM,16X,36HAVERAGE NUMBER OF ITEMS INSTALLED ON,
     +14H PLATFORM TYPE/,8H   INDEX,15X,50(1H-)/,7H    (I),I4,11I7//)
25    FORMAT(/45H ********** THE REMAINDER OF FILE 8B NOT READ)

C     MAXI HOLDS THE MAXIMUM NUMBER AND INDEX OF ITEMS

      MAXI=999

C     MAXNDS HOLDS THE MAXIMUM NUMBER OF SRUS IN AN LRU

      MAXNDS=50

      NERR=0
      NUMLRU=0
      NUMITM=0
      WROTE=.FALSE.
      DO 30 NP=1,12

C        INITEM WILL HOLD THE ITEM-IN-PLATFORM DATA IN INTEGER FORMAT

         INITEM(NP)=0

30    CONTINUE

      DO 36 ILOOP=1,MAXI

C        NITEM(I,NP) WILL HOLD THE ITEM-IN-PLATFORM DATA

         DO 33 NP=1,12
            NITEM(ILOOP,NP)=0.
33       CONTINUE

C        ITEM(I,1) WILL INDICATE WHETHER ITEM(I) WAS IN INITIAL FILE

         ITEM(ILOOP,1)=.FALSE.

C        ITEM(I,2) IS .TRUE. IF ITEM(I) IS AN LRU

         ITEM(ILOOP,2)=.FALSE.

C        YET(I) WILL INDICATE WHETHER ITEM(I) WAS IN A PARTICULAR FILE

         YET(ILOOP)=.FALSE.

36    CONTINUE
```

```
      REWIND 25
      CALL CLRYET

C     LABEL THE INPUT TABLE

      WRITE(7,14)
      WRITE(7,23) (I,I=1,12)
      IPAGE=0
      LASTI=0
      DO 200 ILOOP=1,NUMLRU
         READ(25,2) XCOL1,IL,(NITEM(IL,NP),NP=1,12)
         IF (XCOL1.NE.STAR) GO TO 120

C        IF WE FOUND A STAR, THEN THERE ARE TOO FEW ITEMS IN THIS FILE

            CALL ERROR(13,IL,25)

C           NOW CHECK WHICH ITEMS ARE MISSING FROM THIS FILE

            DO 110 IL=1,MAXI
               IF (ITEM(IL,2).AND..NOT.YET(IL)) CALL ERROR(4,IL,25)
110         CONTINUE

C           ESCAPE.  JUMP TO NEXT FILE

            GO TO 210

120      CONTINUE

C        ECHO PRINT THE FILE
         WRITE(7,12) IL,(NITEM(IL,NP),NP=1,12)
         IPAGE=IPAGE+1
         IF (IPAGE.LT.40) GO TO 130
            WRITE(7,14)
            WRITE(7,19)
            WRITE(7,23) (J1,J1=1,12)
            IPAGE=0

130      CONTINUE

         IF (IL.GT.0.AND.IL.LE.MAXI) GO TO 140

C           ITEM INDEX OUT OF RANGE.  NOTIFY AND SKIP TO NEXT CARD

            CALL ERROR(8,IL,25)
            GO TO 200
140      CONTINUE
```

```
         CALL CHECK1(IL,25)

C        CHECK IF THIS LRU ITEM IS MARKED AS AN LRU IN INITIAL FILE
C        (THIS FILE SHOULD HAVE ONLY LRU ITEMS)

         IF (ITEM(IL,1).AND..NOT.ITEM(IL,2)) CALL ERROR(3,IL,25)

200   CONTINUE

C     WE SHOULD BE AT THE BOTTOM OF THE FILE.

      READ(25,2) XCOL1,IL,(INPVEC(J1),J1=1,12)
      IF (XCOL1.EQ.STAR) GO TO 210

C        WE WEREN'T.  READ ON, ERROR CHECKING AS BEFORE.

         CALL ERROR(12,0,25)
206      CONTINUE

         IF (IL.GT.0.AND.IL.LE.MAXI) GO TO 207

C           ITEM INDEX OUT OF RANGE.  NOTIFY AND SKIP TO NEXT RECORD

            CALL ERROR(8,IL,25)
            GO TO 208

207      CONTINUE

C        NOW THAT WE KNOW THAT WE HAVE A LEGAL SUBSCRIPT

         DO 998 J1=1,12
            NITEM(IL,J1)=INPVEC(J1)
998      CONTINUE

C        ECHO PRINT THE FILE

         IPAGE=IPAGE+1
         WRITE(7,12) IL,(NITEM(IL,NP),NP=1,12)
         IF (IPAGE.LT.40) GO TO 999
            WRITE(7,14)
            WRITE(7,19)
            WRITE(7,23) (J1,J1=1,12)
            IPAGE=0

999      CONTINUE
```

```
          CALL CHECK1(IL,25)

C         CHECK AGAIN IF THIS LRU ITEM IS MARKED AS AN LRU IN INITIAL
C         FILE (THIS FILE SHOULD HAVE ONLY LRU ITEMS)

          IF (ITEM(IL,1).AND..NOT.ITEM(IL,2)) CALL ERROR(3,IL,25)

208       CONTINUE

          READ(25,5) XCOL1,IL

C         CHECK IF WE ARE AT THE END-OF-FILE MARKER OR END OF DATA

          IF (XCOL1.NE.STAR.AND.IL.NE.0) GO TO 206

C         IF WE RAN OUT OF DATA WITHOUT A MARKER, NOTIFY

          IF (XCOL1.NE.STAR) CALL ERROR(9,0,25)

210     CONTINUE

C       READ IN THE LRU/SRU CROSS REFERENCE TABLE

        REWIND 26
        CALL CLRYET

C       LABLE THE OUTPUT

        WRITE(7,18)
        WRITE(7,20)
        IPAGE=0

        LASTI=0
        DO 300 ILOOP=1,NUMLRU
           READ(26,4) XCOL1,IL,NDS,(ISRU(K),QPA(K),K=1,14)
           IF (XCOL1.NE.STAR) GO TO 225

C             IF WE FOUND A STAR, THEN THERE ARE TOO FEW ITEMS HERE

              CALL ERROR(13,0,26)

C             ESCAPE.  JUMP TO NEXT FILE

              GO TO 310

225        CONTINUE
```

```
C       ECHO PRINT THE DATA

        IPAGE=IPAGE+1
        WRITE(7,21) IL,NDS,(ISRU(J1),QPA(J1),J1=1,14)
        IF (IPAGE.LT.40) GO TO 226
           WRITE(7,18)
           WRITE(7,19)
           WRITE(7,20)
           IPAGE=0

226     CONTINUE

        IF (IL.GT.0.AND.IL.LE.MAXI) GO TO 227

C          INDEX IS OUT OF RANGE.  NOTIFY AND SKIP TO NEXT RECORD

           CALL ERROR(8,IL,26)
           GO TO 300

227     CONTINUE

        CALL CHECK1(IL,26)

C       CHECK IF THIS LRU ITEM IS MARKED AS AN LRU IN INITIAL FILE

        IF (ITEM(IL,1).AND..NOT.ITEM(IL,2)) CALL ERROR(3,IL,26)

C       CHECK IF THE NUMBER OF SRUS IN THIS LRU EXCEEDS THE LIMIT

        IF (NDS.LE.MAXNDS) GO TO 228

           CALL ERROR(15,IL,26)

C          SET NDS TO MAXNDS.  THIS WILL GIVE SOME ERROR CHECKING
C          OF THE SRU LIST.  NOTE THAT ADDITIONAL CARDS WILL BE READ
C          AS LISTS FOR AN ITEM INDEXED ZERO, GENERATING MESSAGES.

           NDS=MAXNDS

228     CONTINUE

C       READ IN THE REST OF THE SRU DATA, OFF OF SUBSEQUENT CARDS
C            IF NECESSARY

        J2=14
        J3=14
```

```
230       CONTINUE

C         CHECK IF THERE ARE MORE CARDS TO READ

          IF(.NOT.(NDS.GT.J3.AND.NDS.LE.MAXNDS)) GO TO 240
             J2=J3+1
             J3=J2+13
             READ(26,17) XCOL1,(ISRU(J1),QPA(J1),J1=J2,J3)
             WRITE(7,22) (ISRU(J1),QPA(J1),J1=J2,J3)
             IF (XCOL1.NE.STAR) GO TO 230

             CALL ERROR(16,IL,26)

C            ESCAPE TO NEXT FILE

             GO TO 310

240       CONTINUE

C         THIS NEXT SET OF CODE IS THE ONLY CALCULATION DONE BY THIS
C         PROGRAM.  IF THERE ARE ANY SRUS IN THIS LRU, THEN THEY ARE
C         ADDED INTO THE ITEM-IN-PLATFORM MATRIX

          IF (NDS.EQ.0) GO TO 250
            DO 248 K=1,NDS
              IF (ISRU(K).GT.0.AND.ISRU(K).LE.MAXI) GO TO 244

C               INDEX OUT OF RANGE.  NOTIFY AND JUMP TO NEXT SRU

                CALL ERROR(6,IL,26)
                GO TO 248

244           CONTINUE

C             CHECK IF THIS SRU ITEM APPEARS IN THE INITIAL FILE

              IF (.NOT.ITEM(ISRU(K),1)) CALL ERROR(2,K,26)

C             CHECK IF THIS SRU ITEM IS MARKED AS AN SRU IN INITIAL FILE

              IF (ITEM(ISRU(K),1).AND.ITEM(ISRU(K),2)) CALL ERROR(7,K,26)

              DO 246 NP=1,12
                NITEM(ISRU(K),NP)=NITEM(ISRU(K),NP)+QPA(K)*NITEM(IL,NP)
246           CONTINUE

248         CONTINUE
```

```
250       CONTINUE

300    CONTINUE

C      THIS SHOULD BE THE END OF THE FILE

       READ(26,3) XCOL1
       IF (XCOL1.EQ.STAR) GO TO 305

C         IT WASN'T.  NOTIFY, AND SKIP TO NEXT FILE

          CALL ERROR(12,0,26)
          WRITE(7,25)

305    CONTINUE

C      CHECK TO SEE IF WE MISSED ANY LRUS ALONG THE WAY

       DO 310 IL=1,MAXI
          IF (ITEM(IL,2).AND..NOT.YET(IL)) CALL ERROR(4,IL,26)
310    CONTINUE

C      WRITE OUT THE ITEM IN PLATFORM FILE TO UNIT 21 AND THE OFFLINE
C      PRINTER ONLY IF WE HAVE NOT ENCOUNTERED ANY ERRORS YET.

       IF (NERR.NE.0) GO TO 314

C         'WROTE' FLAGS THAT WE WROTE THE FILE

          WROTE=.TRUE.
          REWIND 18

C         LABEL THE OUTPUT

          WRITE(7,15)
          WRITE(7,24) (I,I=1,12)
          IPAGE=0

          DO 313 ILOOP=1,NUMITM
             READ(18,5) XCOL1,I

C               PRINT WITHOUT DECIMAL POINT IN A FIELD OF WIDTH FOUR

             DO 312 NP=1,12
                INITEM(NP)=INT(0.5+100*NITEM(I,NP))
312          CONTINUE
```

```
            IPAGE=IPAGE+1
            WRITE(21,11) BLANK,I,(INITEM(NP),NP=1,12)
            WRITE(7,12) I,(NITEM(I,NP),NP=1,12)
            IF (IPAGE.LT.40) GO TO 313
               WRITE(7,15)
               WRITE(7,19)
               WRITE(7,24) (J1,J1=1,12)
               IPAGE=0

313      CONTINUE

         WRITE(21,3) STAR

314   CONTINUE

C     CHECK THIS SUPPORT EQUIPMENT PER ITEM FILE FOR CONSISTENCY

      REWIND 20
      CALL CLRYET

      DO 400 ILOOP=1,NUMITM
         READ(20,16) XCOL1,I,NRM,IRM
         IF(XCOL1.NE.STAR) GO TO 320

C           IF WE FOUND A STAR THEN THERE ARE TOO FEW ITEMS HERE

            CALL ERROR(13,0,20)

C           ESCAPE.  JUMP TO NEXT FILE

            GO TO 410

320      CONTINUE

         IF (I.GT.0.AND.I.LE.MAXI) GO TO 340

C           INDEX OUT OF RANGE.  NOTIFY AND GO TO NEXT INDEX RECORD

            CALL ERROR(8,I,20)
            GO TO 345

340      CONTINUE

         CALL CHECK1(I,20)

345      CONTINUE
```

```
C        SKIP NRM-1 LINES TO GET TO THE NEXT ITEM INDEX

C        THIS GOTO IS TO A POINT INSIDE OF THE FOLLOWING DO LOOP,
C        ONLY TO INSURE CHECKING OF THE CURRENT IRM VALUE.

         IF (NRM.EQ.1) GO TO 350

         NRMM1=NRM-1
         DO 360 K=1,NRMM1
            READ(20,16) XCOL1,IL,NRM,IRM

            IF (IL.EQ.0.AND.NRM.EQ.0) GO TO 350
               CALL ERROR(10,I,20)

C              IT IS TOO DIFFICULT TO ANTICIPATE EXACTLY WHAT THE
C              ERROR WAS AND TO LOCATE THE NEXT "CORRECT" RECORD,
C              SO THE REST OF THE FILE IS NOT READ.

               GO TO 415

350         CONTINUE
            IF (IRM.LT.1.OR.IRM.GT.4) CALL ERROR(14,I,20)

360      CONTINUE

400   CONTINUE

      READ(20,5) XCOL1,I

C     WE SHOULD BE AT THE END OF THE FILE

      IF (XCOL1.EQ.STAR) GO TO 410

C        WE WEREN'T.  NOTIFY, AND READ ON, ERROR CHECKING

         CALL ERROR(12,0,20)

402      CONTINUE
         IF (I.GT.0.AND.I.LE.MAXI) GO TO 404

C           INDEX OUT OF RANGE.  NOTIFY, AND GO TO NEXT RECORD

            CALL ERROR(8,I,20)
            GO TO 406

404      CONTINUE
```

```
            CALL CHECK1(I,20)

406         CONTINUE

C           SKIP NRM-1 LINES TO GET TO THE NEXT ITEM INDEX

C           THIS GOTO IS TO A POINT INSIDE OF THE FOLLOWING DO LOOP,
C           ONLY TO INSURE CHECKING OF THE CURRENT IRM VALUE.

            IF (NRM.EQ.1) GO TO 408

            NRMM1=NRM-1
            DO 409 K=1,NRMM1
               READ(20,16) XCOL1,IL,NRM,IRM

               IF (.NOT.(IL.EQ.0.AND.NRM.EQ.0)) GO TO 408
                  CALL ERROR(10,I,20)

C                 IT IS TOO DIFFICULT TO ANTICIPATE EXACTLY WHAT THE
C                 ERROR WAS AND TO LOCATE THE NEXT "CORRECT" RECORD,
C                 SO THE REST OF THE FILE IS NOT READ.

                  GO TO 510

408            CONTINUE
               IF (IRM.LT.1.OR.IRM.GT.4) CALL ERROR(14,I,20)

409         CONTINUE
            READ(20,5) XCOL1,I

C           CHECK IF AT END OF FILE OR END OF DATA

            IF (XCOL1.NE.STAR.AND.I.NE.0) GO TO 402

C           IF AT END OF DATA BUT NOT END OF FILE THEN MARKER MISSING

            IF (XCOL1.NE.STAR) CALL ERROR(9,0,20)

410      CONTINUE

C        CHECK IF WE MISSED ANY ITEMS ALONG THE WAY

         CALL CHECK2(20)

415      CONTINUE
```

```
C     CHECK THIS BY-ITEM FILE FOR CONSISTENCY

      REWIND 22
      CALL CLRYET

      DO 500 ILOOP=1,NUMITM
         READ(22,5) XCOL1,I
         IF(XCOL1.NE.STAR) GO TO 420

C           IF WE FOUND A STAR THEN THERE ARE TOO FEW ITEMS HERE

            CALL ERROR(13,0,22)

C           ESCAPE.  JUMP TO NEXT FILE
            GO TO 510

420      CONTINUE
         IF (I.GT.0.AND.I.LE.MAXI) GO TO 440

C           INDEX OUT OF RANGE.  NOTIFY AND GO TO NEXT RECORD

            CALL ERROR(8,I,22)
            GO TO 500

440      CONTINUE

         CALL CHECK1(I,22)

500   CONTINUE

      READ(22,5) XCOL1,I

C     WE SHOULD BE AT THE END OF THE FILE

      IF (XCOL1.EQ.STAR) GO TO 510

C        WE WEREN'T.  NOTIFY, AND READ ON, ERROR CHECKING

         CALL ERROR(12,0,22)

505      CONTINUE
         IF (I.GT.0.AND.I.LE.MAXI) GO TO 507

C           INDEX OUT OF RANGE.  NOTIFY AND GO TO NEXT RECORD

            CALL ERROR(8,I,22)
            GO TO 508
```

```
507      CONTINUE

         CALL CHECK1(I,22)

508      CONTINUE
         READ(22,5) XCOL1,I

C        CHECK IF AT END OF FILE OR END OF DATA

         IF (XCOL1.NE.STAR.AND.I.NE.0) GO TO 505

C        IF AT END OF DATA BUT NOT END OF FILE THEN MARKER MISSING

         IF (XCOL1.NE.STAR) CALL ERROR(9,0,22)

510   CONTINUE

C     CHECK IF WE MISSED ANY ITEMS ALONG THE WAY

      CALL CHECK2(22)

C     CHECK THIS BY-ITEM FILE FOR CONSISTENCY

      REWIND 19
      CALL CLRYET

      DO 600 ILOOP=1,NUMITM
         READ(19,5) XCOL1,I
         IF(XCOL1.NE.STAR) GO TO 520

C           IF WE FOUND A STAR THEN THERE ARE TOO FEW ITEMS HERE

            CALL ERROR(13,0,19)

C           ESCAPE.  JUMP TO NEXT FILE.

            GO TO 610

520      CONTINUE
         IF (I.GT.0.AND.I.LE.MAXI) GO TO 540

C           INDEX OUT OF RANGE.  NOTIFY AND GO TO NEXT FILE

            CALL ERROR(8,I,19)
            GO TO 600
```

```
540       CONTINUE

          CALL CHECK1(I,19)

600    CONTINUE

       READ (19,5) XCOL1,I

C      WE SHOULD BE AT THE END OF THE FILE

       IF (XCOL1.EQ.STAR) GO TO 610

C         WE WEREN'T.  NOTIFY AND READ ON, ERROR CHECKING

          CALL ERROR(12,0,19)

605       CONTINUE
          IF (I.GT.0.AND.I.LE.MAXI) GO TO 607

C            INDEX OUT OF RANGE.  NOTIFY AND GO TO NEXT RECORD

             CALL ERROR(8,I,19)
             GO TO 608

607       CONTINUE

          CALL CHECK1(I,19)

608       CONTINUE
          READ(19,5) XCOL1,I

C         CHECK IF AT END OF FILE OR END OF DATA

          IF (XCOL1.NE.STAR.AND.I.NE.0) GO TO 605

C         IF AT END OF DATA BUT NOT END OF FILE THEN MARKER MISSING

          IF (XCOL1.NE.STAR) CALL ERROR(9,0,19)

610    CONTINUE

C      CHECK IF WE MISSED ANY ITEMS ALONG THE WAY

       CALL CHECK2(19)

C      GIVE THE NEWS
```

```
      WRITE(6,6) NERR

      IF (WROTE) WRITE(6,8)
      IF (.NOT.WROTE) WRITE(6,7)

      STOP

      END
```

```
      SUBROUTINE ERROR(TYPE,LINE,FILE)

C     THIS SUBROUTINE PRINTS OUT THE ERROR MESSAGES AND TALLIES
C     THE NUMBER OF ERRORS.

      COMMON ITEM(999,2),NERR,YET(999),LASTI,MAXI
      INTEGER TYPE,LINE,FILE,MAXI,NERR
      LOGICAL ITEM,YET

1     FORMAT(/24H *ERROR  1* ITEM NUMBER ,I3,23H HAS TWO CARDS IN UNIT ,
     +I2)
2     FORMAT(/31H *ERROR  2* A NEW ITEM INDEXED ,I3,9H APPEARS ,
     +8HIN UNIT ,I2)
3     FORMAT(/25H *ERROR  3* AN SRU (ITEM ,I3,21H) APPEARS IN THE LRU ,
     +13HLIST IN UNIT ,I2)
4     FORMAT(/17H *ERROR  4* ITEM ,I3,22H IS MISSING FROM UNIT ,I2)
5     FORMAT(/17H *ERROR  5* ITEM ,I3,28H IS OUT OF SEQUENCE IN UNIT ,
     +I2)
6     FORMAT(/51H *ERROR  6* INVALID SRU INDEX IN LIST FOR LRU ITEM ,I3,
     +9H IN UNIT ,I2)
7     FORMAT(/25H *ERROR  7* AN LRU (ITEM ,I3,20H) APPEARS IN THE SRU,
     +14H LIST IN UNIT ,I2)
8     FORMAT(/32H *ERROR  8* INVALID ITEM INDEX (,I4,10H) APPEARS ,
     +8HIN UNIT ,I2)
9     FORMAT(/53H *ERROR  9* END OF FILE MARKER (*) MISSING FROM UNIT ,
     +I2)
10    FORMAT(/38H *ERROR 10* FILE FORMAT ERROR IN UNIT ,I2,5H: NRM/
     +17X,15HVALUE FOR ITEM ,I3,17H IS INCONSISTENT./
     +17X,39HTHE REMAINDER OF THIS FILE IS NOT READ.)
11    FORMAT(/53H *ERROR 11* ITEM DESCRIPTION FILE CONTAINS MORE THAN /
     +17X,29HTHE ALLOWABLE NUMBER OF ITEMS)
12    FORMAT(/17H *ERROR 12* UNIT ,I2,26H CONTAINS MORE ITEMS THAN ,
     +12HINITIAL FILE)
13    FORMAT(/17H *ERROR 13* UNIT ,I2,27H CONTAINS FEWER ITEMS THAN ,
     +12HINITIAL FILE)
14    FORMAT(/44H *ERROR 14* IRM VALUE OUT OF RANGE FOR ITEM ,I3/
     +17X,8HIN UNIT ,I2)
15    FORMAT(/16H *ERROR 15* LRU ,I3,24H CONTAINS TOO MANY SRUS ,
     +8HIN UNIT ,I2)
16    FORMAT(/52H *ERROR 16* END OF FILE FOUND BEFORE END OF SRU LIST/
     +17X,8HFOR LRU ,I3,9H IN UNIT ,I2)

      IF (TYPE.EQ.1)  WRITE(6,1) LINE,FILE
      IF (TYPE.EQ.2)  WRITE(6,2) LINE,FILE
      IF (TYPE.EQ.3)  WRITE(6,3) LINE,FILE
      IF (TYPE.EQ.4)  WRITE(6,4) LINE,FILE
      IF (TYPE.EQ.5)  WRITE(6,5) LINE,FILE
```

```
IF (TYPE.EQ.6)  WRITE(6,6) LINE,FILE
IF (TYPE.EQ.7)  WRITE(6,7) LINE,FILE
IF (TYPE.EQ.8)  WRITE(6,8) LINE,FILE
IF (TYPE.EQ.9)  WRITE(6,9) FILE
IF (TYPE.EQ.10) WRITE(6,10) FILE,LINE
IF (TYPE.EQ.11) WRITE(6,11)
IF (TYPE.EQ.12) WRITE(6,12) FILE
IF (TYPE.EQ.13) WRITE(6,13) FILE
IF (TYPE.EQ.14) WRITE(6,14) LINE,FILE
IF (TYPE.EQ.15) WRITE(6,15) LINE,FILE
IF (TYPE.EQ.16) WRITE(6,16) LINE,FILE

IF (TYPE.EQ.1)  WRITE(7,1) LINE,FILE
IF (TYPE.EQ.2)  WRITE(7,2) LINE,FILE
IF (TYPE.EQ.3)  WRITE(7,3) LINE,FILE
IF (TYPE.EQ.4)  WRITE(7,4) LINE,FILE
IF (TYPE.EQ.5)  WRITE(7,5) LINE,FILE
IF (TYPE.EQ.6)  WRITE(7,6) LINE,FILE
IF (TYPE.EQ.7)  WRITE(7,7) LINE,FILE
IF (TYPE.EQ.8)  WRITE(7,8) LINE,FILE
IF (TYPE.EQ.9)  WRITE(7,9) FILE
IF (TYPE.EQ.10) WRITE(7,10) FILE,LINE
IF (TYPE.EQ.11) WRITE(7,11)
IF (TYPE.EQ.12) WRITE(7,12) FILE
IF (TYPE.EQ.13) WRITE(7,13) FILE
IF (TYPE.EQ.14) WRITE(7,14) LINE,FILE
IF (TYPE.EQ.15) WRITE(7,15) LINE,FILE
IF (TYPE.EQ.16) WRITE(7,16) LINE,FILE

NERR=NERR+1

RETURN

END
```

```
      SUBROUTINE CLRYET

C     THIS SUBROUTINE 'CLEARS OUT' YET(999) BY SETTING TO .FALSE.
C     AND RESETS LASTI TO 0.

      COMMON ITEM(999,2),NERR,YET(999),LASTI,MAXI
      INTEGER I,NERR,MAXI,LASTI
      LOGICAL YET,ITEM

      DO 10 I=1,MAXI
         YET(I)=.FALSE.
10    CONTINUE

      LASTI=0

      RETURN

      END
```

```
      SUBROUTINE CHECK1(I,FILE)

C     THIS SUBROUTINE PERFORMS ERROR TESTS ON ITEM I IN FILE 'FILE'

      COMMON ITEM(999,2),NERR,YET(999),LASTI,MAXI
      LOGICAL ITEM,YET
      INTEGER I,FILE,NERR,LASTI,MAXI

C     CHECK IF THIS ITEM IS IN SEQUENCE
      IF (I.LT.LASTI) CALL ERROR(5,I,FILE)
      LASTI=I

C     CHECK IF THIS ITEM APPEARED IN THE INITIAL FILE

      IF (.NOT.ITEM(I,1)) CALL ERROR(2,I,FILE)

C     CHECK IF THIS ITEM HAS ALREADY APPEARED IN THIS FILE

      IF (YET(I)) CALL ERROR(1,I,FILE)
      YET(I)=.TRUE.

      RETURN

      END
```

```
      SUBROUTINE CHECK2(FILE)

C     THIS SUBROUTINE CHECK WHICH ITEMS ARE MISSING FROM FILE 'FILE'.
C     NOTE THAT CHECK2 ONLY TEST FOR "ITEMNESS" AND NOT "LRUNESS", SO
C     THAT FILES INDEXED BY LRU ITEM ARE CHECKED IN THE MAIN PROGRAM.

      COMMON ITEM(999,2),NERR,YET(999),LASTI,MAXI
      INTEGER I,FILE,NERR,LASTI,MAXI
      LOGICAL ITEM,YET

      DO 10 I=1,MAXI
         IF (ITEM(I,1).AND..NOT.YET(I)) CALL ERROR(4,I,FILE)
10    CONTINUE

      RETURN

      END
```

APPENDIX E

LCC PROGRAM FORTRAN SOURCE CODE

```
C*************************************************************************
C                                                              800827 113618504
C*************************************************************************
      COMMON /LDFPR / LDFPR
      COMMON /LDSRU / LDSRU
      COMMON /LDFR  / LDFR
      COMMON /LDUP  / LDUP
      COMMON /LDCOND/ LDCOND
      COMMON /LDNRTS/ LDNRTS
      COMMON /LDRTS / LDRTS
      COMMON /LDRM  / LDRM
      COMMON /LDERV / LDERV
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
      COMMON /ITERXX/ ITERXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /RERDXX/ RERDXX
      INTEGER RERDXX
      COMMON /NERRXX/ NERRXX
      COMMON /NERRYY/ NERRYY
      COMMON /REDOXX/ REDOXX
      INTEGER REDOXX
C
    1 FORMAT(1H1//22H PROGRAM STOPS DUE TO ,I4,
     +  16H ERRORS ON INPUT)
C
C
C
C
C*************************************************************************
C*  INITIALIZE SENSITIVITY PRINT PARAMETERS                              *
C*************************************************************************
C
      CALL SSETXX
C
C
C
C*************************************************************************
C*  EACH PASS THROUGH THIS LOOP REPRESENTS A SINGLE LCC CALCULATION      *
C*************************************************************************
```

```
C
      DO 888 ITERXX=1,50
C
C
C
C*********************************************************************  *********
C*  PROMPT THE USER FOR CONTROL VARIABLES PRNTXX,MAXPMT,XTITLE,RERDXX, *
C*  AND FULLXX.                                                        *
C*********************************************************************************
C
      EXITXX=0
      CALL PRMPT1
C
C
C
C*********************************************************************************
C*  IF THIS IS THE FIRST ITERATION OR IF THE USER REQUESTED TO         *
C*  REREAD THE FILES, INITIALIZE VARIABLES AND READ THE INPUT FILES    *
C*********************************************************************************
C
      IF(PRNTXX.NE.0) CALL TITLE
      IF(ITERXX.NE.1.AND.RERDXX.NE.1) GO TO 2
      CALL INITAL
      NERRXX=0
      REWIND 11
      REWIND 12
      REWIND 13
      REWIND 14
      REWIND 15
      REWIND 16
      REWIND 17
      REWIND 18
      REWIND 19
      REWIND 20
      REWIND 21
      REWIND 22
      CALL READ1
      CALL READ2
      CALL READ3
      CALL READ4
      CALL READ5
      CALL READ6
      CALL READ7
      CALL READ8
      CALL READ9A
      CALL READ9B
      CALL READ10
```

```
      CALL READ11
      NERRYY=NERRXX
    2 CONTINUE
C
C
C
C*****************************************************************************
C*  READ NAMELISTS /GO1/, /GO2/ AND ,SENS/ TO OVERRIDE                       *
C*   VARIABLE VALUES WITH INTERACTIVE INPUTS AND TO SET SENSITIVITY           *
C*  OUTPUT FLAGS.                                                            *
C*****************************************************************************
C
      CALL PRMPT2
      IF(EXITXX.EQ.1) GO TO 6
      CALL PRMPT3
      IF(EXITXX.EQ.1) GO TO 6
C
C
C
C*****************************************************************************
C*  PERFORM ANY ERROR CHECKS OR CALCULATIONS WHICH SHOULD                     *
C*  BE PERFORMED BEFORE THE INPUT TABLES ARE PRINTED.                         *
C*****************************************************************************
C
      CALL INITAX
C
C
C
C*****************************************************************************
C*  PRINT THE INPUT DATA VALUES.                                             *
C*****************************************************************************
C
      CALL ERRCK1
      CALL RLCOMP
      CALL OTABST
      CALL ITAB1A
      CALL ITAB1B
      CALL ITAB1C
      CALL ITAB2
      CALL ITAB3
      CALL ITAB4
      CALL ITAB5
      CALL ITAB6
      CALL ITAB7
      CALL ITAB8
      CALL ITAB9A
      CALL ITAB9B
```

```
      CALL ITB10A
      CALL ITB10B
      CALL ITB10C
      CALL ITB10D
      CALL ITAB11
C
C
C
C*************************************************************************
C*  STOP IF ANY ERRORS WERE FOUND ON INPUT.                              *
C*************************************************************************
C
      NERRXX=NERRYY
      IF(NERRXX.EQ.0) GO TO 4
        WRITE(6,1) NERRXX
        IF(PRNTXX.NE.0) WRITE(7,1) NERRXX
        STOP
    4 CONTINUE
C
C
C
C*************************************************************************
C*  LCC CALCULATIONS                                                     *
C*************************************************************************
C
      CALL ZFAIL
      CALL ZNFB
      CALL ZERHB
      CALL ZERHSE
      CALL ZISET
      CALL ZUSE
      CALL ZTYPE
      CALL ZTFR
      CALL ZSECI
      CALL ZPMEQ
      CALL ZTISQ
      CALL ZYRSQ
      CALL ZTOTPQ
      CALL ZLC
      CALL COST1
      CALL COST2
      CALL COST3
      CALL COST4
      CALL COST5
      CALL COST6
      CALL COST7
      CALL COST8
```

```
      CALL COST9
      CALL COST10
      CALL COST11
C
C
C
C*****************************************************************************
C*  SENSITIVITY CALCULATIONS                                                 *
C*****************************************************************************
C
      CALL DPIUP
      CALL DDMF
      CALL DRM
      CALL DXRM
      CALL DXUC
      IF (LDUP  .NE.0.OR.(PRNTXX.NE.0.AND.LDERV .NE.0)) CALL DUP
      CALL DFR
      CALL DXFR
      CALL DFPR
      CALL DXFPR
      IF (LDRTS .NE.0.OR.(PRNTXX.NE.0.AND.LDERV .NE.0)) CALL DRTS
      IF (LDNRTS.NE.0.OR.(PRNTXX.NE.0.AND.LDERV .NE.0)) CALL DNRTS
      IF (LDCOND.NE.0.OR.(PRNTXX.NE.0.AND.LDERV .NE.0)) CALL DCOND
      IF (LDSRU .NE.0.OR.(PRNTXX.NE.0.AND.LDERV .NE.0)) CALL DSRU
      CALL DXMIL
C
C
C
C*****************************************************************************
C*  TELL THE USER TO ADJUST TERMINAL TO A NEW PAGE                           *
C*****************************************************************************
C
      CALL PRMPT4
      IF(EXITXX.EQ.1) GO TO 6
C
C
C
C*****************************************************************************
C*  PRINT OUTPUT TABLES AT TERMINAL AND/OR OFFLINE PRINTER                   *
C*****************************************************************************
C
      CALL OTAB1
      CALL OTAB2
      CALL OTAB3A
      CALL OTAB3B
      CALL OTAB3C
      CALL OTAB4A
```

```
      CALL OTAB4B
      CALL OTAB4C
      CALL OTAB5
      CALL OTAB6
      CALL OTAB7
      CALL RLAPRT
      CALL PRMPT5
      IF(EXITXX.EQ.1) GO TO 6
C
C
C
C*************************************************************************************
C*  PRINT SENSITIVITY TABLE AT TERMINAL AND/OR OFFLINE PRINTER                       *
C*************************************************************************************
C
      CALL OSENS
C
C
C
C*************************************************************************************
C*  ASK THE USER WHETHER A' OTHER RUN IS DESIRED.                                    *
C*************************** ***********************************************************
C
    6 CALL PRMPT6
      IF(REDOXX.EQ.0) GO TO 999
  888 CONTINUE
C
  999 STOP
C
      END
```

```
      SUBROUTINE READ1
C                                                              800827 110323454
C*****************************************************************************
C*    SSS MOD LCR                                                            *
C*  READS THE MISCELLANEOUS SCALAR DATA                                      *
C*  FILE FROM CHANNEL 11                                                     *
C*****************************************************************************
C
      COMMON /ACPP/ ACPP
      COMMON /BAA/ BAA
      COMMON /BDATA/ BDATA
      INTEGER BDATA
      COMMON /BF/ BF
      COMMON /BIRD/ BIRD
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BRCT/ BRCT
      COMMON /CFG/ CFG(3)
      COMMON /CPD1/ CPD1
      COMMON /CPD2/ CPD2
      COMMON /CPPC/ CPPC
      COMMON /CPPD/ CPPD(3)
      COMMON /CRCT/ CRCT
      COMMON /DAA/ DAA
      COMMON /DAD/ DAD
      COMMON /DDATA/ DDATA
      INTEGER DDATA
      COMMON /DLR/ DLR
      COMMON /DMF/ DMF
      COMMON /DRCT/ DRCT(3)
      COMMON /FSEDC/ FSEDC
      COMMON /HPD1/ HPD1
      INTEGER HPD1
      COMMON /HPD2/ HPD2
      INTEGER HPD2
      COMMON /IMC/ IMC
      REAL IMC
      COMMON /KFAC/ KFAC(4)
      REAL KFAC
      COMMON /MILR/ MILR(3)
      REAL MILR
      COMMON /MRF/ MRF
      REAL MRF
      COMMON /MRO/ MRO
      REAL MRO
      COMMON /MUSE/ MUSE
      REAL MUSE
```

```
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /OST/ OST(3)
      COMMON /OSTC/ OSTC
      COMMON /PAL1/ PAL1
      COMMON /PAL2B/ PAL2B
      COMMON /PAL2D/ PAL2D
      COMMON /PIUP/ PIUP
      COMMON /PMLR/ PMLR
      COMMON /QTYP1/ QTYP1
      INTEGER QTYP1
      COMMON /QTYP2B/ QTYP2B
      INTEGER QTYP2B
      COMMON /QTYP2D/ QTYP2D
      INTEGER QTYP2D
      COMMON /R/ R
      INTEGER R
      COMMON /RCPP/ RCPP
      COMMON /RMC/ RMC
      COMMON /SA/ SA
      COMMON /SPC1/ SPC1
      INTEGER SPC1
      COMMON /SPC2/ SPC2
      INTEGER SPC2
      COMMON /SR/ SR
      COMMON /TEFM/ TEFM
      COMMON /TNLR/ TNLR
      COMMON /TORB/ TORB
      COMMON /TORD/ TORD
      COMMON /TR/ TR
      COMMON /TRAVB/ TRAVB
      COMMON /TRAV1D/ TRAV1D
      COMMON /TYP2TF/ TYP2TF
      COMMON /UCPP/ UCPP
      COMMON /XFPR/ XFPR
      COMMON /XFR/ XFR
      COMMON /XMIL/ XMIL
      COMMON /XUC/ XUC
      NAMELIST /MISC/ BF,BAA,BLR,BMF,BRCT,CFG,CPPC,CPPD,CRCT,DAA,DAD,DLR
     +,DMF,DRCT,IMC,KFAC,MILR,MUSE,NRUC,OST,OSTC,PIUP,PMLR,RMC,SA,TNLR,X
     +FPR,XFR,XMIL,XUC,HPD2,TORB,TORD,MRO,MRF,SR,TR,PAL1,PAL2B,PAL2D,TRA
     +V1D,TRAVB,ACPP,CPD2,RCPP,UCPP,BIRD,QTYP1,QTYP2B,QTYP2D,SPC2,TYP2TF
     +,BDATA,CPD1,DDATA,FSEDC,HPD1,R,SPC1,TEFM
C
C
      READ(11,MISC)
C
```

```
      RETURN
      END
```

```
      SUBROUTINE READ2
C                                                              800827 110338677
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  READS THE BASE CONFIGURATION FILE                                        *
C*  FROM CHANNEL 12                                                          *
C*****************************************************************************
C
      COMMON /BNOUN/ BNOUN(16,16)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BSP/ BSP(16)
      INTEGER BSP
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /LO/ LO(16)
      COMMON /MXNS/ MXNS
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NHB/ NHB(16)
      COMMON /NS/ NS
      COMMON /TNB/ TNB(16)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I2,16A1,F3.0,3I2,F3.0,2I2)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 12 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXNS=0
      DO 210 NS=1,16
        READ(12, 1) XXCOL1,NS1,(BNOUN(NS,I1),I1=1,16),TNB(NS),LO(NS),
     +    BTYPE(NS),NHB(NS),NBC(NS),BPLAT(NS),BSP(NS)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXNS=NS
  210 CONTINUE
C
      READ(12, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ3
C                                                          800827 110350351
C*************************************************************************
C*  READS THE PLATFORM OPERATIONAL DATA FILE                             *
C*  FROM CHANNEL 13                                                      *
C*************************************************************************
C
      COMMON /AMPM/ AMPM(10,3)
      COMMON /APFH/ APFH(10,3)
      COMMON /FGH/ FGH(10)
      COMMON /LE/ LE(10)
      COMMON /M/ M
      COMMON /MMPD/ MMPD(10,3)
      REAL MMPD
      COMMON /MMPM/ MMPM(10)
      REAL MMPM
      COMMON /MXNP/ MXNP
      COMMON /NP/ NP
      COMMON /PNOUN/ PNOUN(10,12)
      COMMON /TFAC/ TFAC(10)
      COMMON /THRS/ THRS(10)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,12A1,I2,3F4.0,F3.2,4X,F3.1,3F4.1,3F5.1,F7.0,F5.0)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 13 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXNP=0
      DO 210 NP=1,10
        READ(13, 1) XXCOL1,NP1,(PNOUN(NP,K1),K1=1,12),LE(NP),(APFH(NP,
     +    M),M=1,3),TFAC(NP),MMPM(NP),(AMPM(NP,M),M=1,3),(MMPD(NP,M),
     +    M=1,3),THRS(NP),FGH(NP)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXNP=NP
  210 CONTINUE
C
      READ(13, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ4
C                                                              800827 110358018
C*****************************************************************************
C*   SSS MOD LCR                                                             *
C*  READS THE PLATFORM TERMINAL COST & NONRECURRING MOD/I                    *
C*  DATA FILE FROM CHANNEL 14                                                *
C*****************************************************************************
C
      COMMON /DRAG/ DRAG(10)
      COMMON /FR/ FR(3,10)
      COMMON /INTNR/ INTNR(10)
      REAL INTNR
      COMMON /INTR/ INTR(10)
      REAL INTR
      COMMON /K/ K(10)
      REAL K
      COMMON /M/ M
      COMMON /MXNP/ MXNP
      COMMON /NAE/ NAE(10)
      REAL NAE
      COMMON /NP/ NP
      COMMON /NRMI/ NRMI(10)
      REAL NRMI
      COMMON /NTRMP/ NTRMP(10)
      REAL NTRMP
      COMMON /PDIV/ PDIV(10)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,F4.2,F9.0,F8.0,F9.0,F4.2,3F3.2,F3.0,2F4.2)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 14 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXNP=0
      DO 210 NP=1,10
        READ(14, 1) XXCOL1,NP1,NTRMP(NP),INTNR(NP),INTR(NP),NRMI(NP),
     +    PDIV(NP),(FR(M,NP),M=1,3),DRAG(NP),K(NP),NAE(NP)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXNP=NP
  210 CONTINUE
C
      READ(14, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
```

```
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ5
C                                                              800827 110417429
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  READS THE PLATFORM RECURRING MOD/INSTALLATION                            *
C*  DATA FILE FROM CHANNEL 15                                                *
C*****************************************************************************
C
      COMMON /AKIT/ AKIT(4,10)
      COMMON /IA/ IA
      COMMON /M/ M
      COMMON /MIFIX/ MIFIX(3,10)
      REAL MIFIX
      COMMON /MIMH/ MIMH(4,3,10)
      REAL MIMH
      COMMON /MXNP/ MXNP
      COMMON /NP/ NP
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,7F5.0,12F3.0)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 15 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXNP=0
      DO 210 NP=1,10
        READ(15, 1) XXCOL1,NP1,(MIFIX(M,NP),M=1,3),(AKIT(IA,NP),IA=1,4),
     +    ((MIMH(IA,M,NP),IA=1,4),M=1,3)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXNP=NP
  210 CONTINUE
C
      READ(15, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ6
C                                                              800827 110436281
C*****************************************************************************
C*  READS THE PLATFORM DEPLOYMENT AT BASES                                   *
C*  DATA FILE FROM CHANNEL 16                                                *
C*****************************************************************************
C
      COMMON /MXNP/ MXNP
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,16F4.2)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 16 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXNP=0
      DO 210 NP=1,10
        READ(16, 1) XXCOL1,NP1,(NPLT(NP,NS),NS=1,16)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXNP=NP
  210 CONTINUE
C
      READ(16, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ7
C                                                          800827 110450953
C*************************************************************************
C*  SSS MOD LCR                                                          *
C*  READS THE SUPPORT EQUIPMENT DATA                                     *
C*  FILE FROM CHANNEL 17                                                 *
C*************************************************************************
C
      COMMON /CSE/ CSE(250)
      COMMON /DATAS/ DATAS(250)
      INTEGER DATAS
      COMMON /L/ L
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXL/ MXL
      COMMON /SEDEV/ SEDEV(250)
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SENOUN/ SENOUN(250,20)
      COMMON /SENUM/ SENUM(250,12)
      COMMON /SETYPE/ SETYPE(250)
      INTEGER SETYPE
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,20A1,12A1,F7.0,F4.3,I2,I3,F8.0)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 17 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXL=0
      DO 210 IXXX1=1,250
        READ(17, 1) XXCOL1,L,(SENOUN(L,I1),I1=1,20),(SENUM(L,I2),I2=1,
     +    12),CSE(L),MSE(L),SETYPE(L),DATAS(L),SEDEV(L)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXL=IXXX1
        SEINO(IXXX1)=L
  210 CONTINUE
C
      READ(17, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
```

```
      RETURN
      END
```

```
      SUBROUTINE READ8
C                                                                    800827 110458958
C*********************************************************************************
C*  SSS MOD LCR                                                                  *
C*  READS THE ITEM EQUIPMENT DATA FILE                                           *
C*  FROM CHANNEL 18                                                              *
C*********************************************************************************
C
      COMMON /GFE/ GFE(999)
      INTEGER GFE
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /INOUN/ INOUN(999,24)
      REAL INOUN
      COMMON /INTEG/ INTEG(999)
      REAL INTEG
      COMMON /LFAC/ LFAC(999)
      REAL LFAC
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /NHI/ NHI(999)
      COMMON /PA/ PA(999)
      COMMON /PTNUM/ PTNUM(999,12)
      COMMON /RM/ RM(999)
      COMMON /UP/ UP(999)
      COMMON /WT/ WT(999)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,24A1,12A1,F3.2,I2,I3,2I2,F6.0,F4.3,F5.2,F4.2)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 18 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXI=0
      DO 210 IXXX1=1,999
        READ(18, 1) XXCOL1,I,(INOUN(I,K1),K1=1,24),(PTNUM(I,K2),K2=1,
     +    12),LFAC(I),LRU(I),NHI(I),GFE(I),INTEG(I),UP(I),RM(I),WT(I),
     +    PA(I)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXI=IXXX1
        INO(IXXX1)=I
  210 CONTINUE
C
      READ(18, 2) XXCOL1
```

```
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ9A
C                                                          800827 110508404
C*************************************************************************
C*  READS THE ITEM MAINTENANCE DATA FILE                                 *
C*  FROM CHANNEL 19                                                      *
C*************************************************************************
C
      COMMON /BCMH/ BCMH(999)
      COMMON /BMH/ BMH(999)
      COMMON /COND/ COND(999)
      COMMON /DMH/ DMH(999)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IPCF/ IPCF(999)
      REAL IPCF
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RIP/ RIP(999)
      COMMON /RL/ RL(999)
      INTEGER RL
      COMMON /RMH/ RMH(999)
      COMMON /RTS/ RTS(999)
      COMMON /WEAR/ WEAR(999)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,4F8.0,F4.3,F3.2,F5.2,3F4.3,4F4.2,I1)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 19 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
    4 FORMAT(1X,37HINPUT ERROR:  INPUT FILE READ IN FROM/
     +51HCHANNEL # 19 CONTAINS FEWER ITEMS THAN ITITIAL FILE)
    5 FORMAT(1X,49HINPUT ERROR:  INDEXING IN INPUT FILE READ IN FROM/
     +46HCHANNEL # 19 IS INCONSISTENT WITH INITIAL FILE)
C
C
      DO 210 IXXX1=1,MXI
        READ(19, 1) XXCOL1,I,(MTBMI(I,K1),K1=1,4),FPR(I),RIP(I),IPCF(I),
     +    RTS(I),NRTS(I),COND(I),RMH(I),BCMH(I),BMH(I),DMH(I),RL(I)
        WEAR(I)=COND(I)
        IF(XXCOL1.NE.XXSTAR) GO TO 200
        NERRXX=NERRXX+1
```

```
      WRITE(6, 4)
      IF(PRNTXX.NE.0) WRITE(7, 4)
      RETURN
  200 CONTINUE
      IF(I     .EQ.INO   (IXXX1))GO TO 210
      WRITE(6, 5)
      IF(PRNTXX.NE.0) WRITE(7, 5)
  210 CONTINUE
C
      READ(19, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ9B
C                                                                  800827 110521080
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  READS THE ITEM MAINTENANCE DATA FILE PART 2                              *
C*  FROM CHANNEL 22                                                          *
C*****************************************************************************
C
      COMMON /DATAB/ DATAB(999)
      INTEGER DATAB
      COMMON /DATAD/ DATAD(999)
      INTEGER DATAD
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /TIME1/ TIME1(999)
      INTEGER TIME1
      COMMON /UCTDEV/ UCTDEV(999)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,4(I3),F7.0)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 22 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
    4 FORMAT(1X,37HINPUT ERROR:  INPUT FILE READ IN FROM/
     +51HCHANNEL # 22 CONTAINS FEWER ITEMS THAN ITITIAL FILE)
    5 FORMAT(1X,49HINPUT ERROR:  INDEXING IN INPUT FILE READ IN FROM/
     +46HCHANNEL # 22 IS INCONSISTENT WITH INITIAL FILE)
C
C
      DO 210 IXXX1=1,MXI
        READ(22, 1) XXCOL1,I,DATAD(I),DATAB(I),TIME1(I),UCTDEV(I)
        IF(XXCOL1.NE.XXSTAR) GO TO 200
        NERRXX=NERRXX+1
        WRITE(6, 4)
        IF(PRNTXX.NE.0) WRITE(7, 4)
        RETURN
  200   CONTINUE
        IF(I      .EQ.INO    (IXXX1))GO TO 210
        WRITE(6, 5)
        IF(PRNTXX.NE.0) WRITE(7, 5)
  210 CONTINUE
C
      READ(22, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
```

```
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ10
C                                                                  800827 110526034
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  READS THE ITEM/SUPPORT EQUIPMENT                                         *
C*  CROSS-REFERENCE DATA FILE FROM CHANNEL 20                                *
C*****************************************************************************
C
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /K1TEMP/ K1TEMP
      COMMON /MXI/ MXI
      COMMON /NJA/ NJA(999,4)
      COMMON /NRM/ NRM(999)
      COMMON /QSA/ QSA(999,4,30)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,2I2,I3,9(I4,F3.0))
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 20 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
    4 FORMAT(1X,37HINPUT ERROR:  INPUT FILE READ IN FROM/
     +51HCHANNEL # 20 CONTAINS FEWER ITEMS THAN ITITIAL FILE)
    5 FORMAT(1X,49HINPUT ERROR:  INDEXING IN INPUT FILE READ IN FROM/
     +46HCHANNEL # 20 IS INCONSISTENT WITH INITIAL FILE)
C
C
      DO 230 IXXX1=1,MXI
        READ(20, 1) XXCOL1,I,NRM(I),IRMIN(I,1),NJA(I,1),(A(I,1,K2),
     +    QSA(I,1,K2),K2=1,9)
        IF(XXCOL1.NE.XXSTAR) GO TO 200
        NERRXX=NERRXX+1
        WRITE(6, 4)
        IF(PRNTXX.NE.0) WRITE(7, 4)
        RETURN
  200   CONTINUE
        IF(I     .EQ.INO   (IXXX1))GO TO 210
        WRITE(6, 5)
        IF(PRNTXX.NE.0) WRITE(7, 5)
        IF(.NOT.(NJA(I,K1TEMP).GT.9)) GO TO 210
          ITER=(NJA(I,1)-1)/9
C
```

```
          DO 205 K2TEMP=1,ITER
          K3=MIN0(K2+9,30)
          K4=K2+1
C
               READ(20,6)(A(I,1,K2),QSA(I,1,K2),K2=K4,K3)
    6         FORMAT(11X,9(I4,F3.0))
  205       CONTINUE
  210   CONTINUE
        IF(.NOT.(NRM(I).GT.1)) GO TO 220
          INRM=NRM(I)
C
          DO 215 K1TEMP=2,INRM
            READ(20,7)IRMIN(I,K1TEMP),NJA(I,K1TEMP),
     +      (A(I,K1TEMP,K2),QSA(I,K1TEMP,K2),K2=1,9)
    7   FORMAT(6X,I2,I3,9(I4,F3.0))
        IF (.NOT.(NJA(I,K1TEMP).GT.9)) GO TO 214
            ITER=(NJA(I,K1TEMP)-1)/9
            DO 212 K2TEMP=1,ITER
              K3=MIN0(K2+9,30)
              K4=K2+1
              READ(20,8) (A(I,K1TEMP,K2),
     +        QSA(I,K1TEMP,K2),K2=K4,K3)
    8         FORMAT(11X,9(I4,F3.0))
  212     CONTINUE
  214   CONTINUE
  215   CONTINUE
  220    CONTINUE
  230 CONTINUE
C
      READ(20, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE READ11
C                                                                    800827 110556202
C*****************************************************************************
C*  BASELINE CHANGE                                                          *
C*  READS THE ITEM CONFIGURATION DATA                                        *
C*  FILE FROM CHANNEL 21                                                     *
C*****************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,10F4.2)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 21 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
    4 FORMAT(1X,37HINPUT ERROR:  INPUT FILE READ IN FROM/
     +51HCHANNEL # 21 CONTAINS FEWER ITEMS THAN ITITIAL FILE)
    5 FORMAT(1X,49HINPUT ERROR:  INDEXING IN INPUT FILE READ IN FROM/
     +46HCHANNEL # 21 IS INCONSISTENT WITH INITIAL FILE)
C
C
      DO 210 IXXX1=1,MXI
        READ(21, 1) XXCOL1,I,(NITEM(I,NP),NP=1,10)
        IF(XXCOL1.NE.XXSTAR) GO TO 200
        NERRXX=NERRXX+1
        WRITE(6, 4)
        IF(PRNTXX.NE.0) WRITE(7, 4)
        RETURN
  200   CONTINUE
        IF(I     .EQ.INO   (IXXX1))GO TO 210
        WRITE(6, 5)
        IF(PRNTXX.NE.0) WRITE(7, 5)
  210 CONTINUE
C
      READ(21, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
      WRITE(6, 3)
      IF(PRNTXX.NE.0) WRITE(7, 3)
C
```

```
RETURN
END
```

```
      SUBROUTINE INITAX
C                                                                  800827 110603116
C*****************************************************************************
C*  SSS MODS                                                                 *
C*  INITIALIZATION OF MODEL PARAMETERS                                       *
C*****************************************************************************
C
      COMMON /AFC/ AFC
      COMMON /AFMC/ AFMC
      COMMON /BAFC/ BAFC(6)
      COMMON /BIIMC/ BIIMC(6)
      COMMON /BISC/ BISC(6)
      COMMON /BMTRC/ BMTRC
      COMMON /BOFMC/ BOFMC(6)
      COMMON /BOLC/ BOLC(6)
      COMMON /BONMC/ BONMC(6)
      COMMON /BRSC/ BRSC(6)
      COMMON /BS/ BS(999)
      COMMON /BSECC/ BSECC(6)
      COMMON /BSECP/ BSECP(6)
      COMMON /BTCDI/ BTCDI
      COMMON /BXTRC/ BXTRC
      COMMON /DMTRC/ DMTRC
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /ERHD/ ERHD(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPLT/ FPLT(999)
      COMMON /FPM/ FPM(999)
      COMMON /I/ I
      COMMON /IIMCA/ IIMCA(999)
      REAL IIMCA
      COMMON /IIMCB/ IIMCB
      REAL IIMCB
      COMMON /IIMCD/ IIMCD
      REAL IIMCD
      COMMON /IIMCI/ IIMCI
      REAL IIMCI
      COMMON /IIMCR/ IIMCR
      REAL IIMCR
      COMMON /IMTRC/ IMTRC
      REAL IMTRC
      COMMON /INO/ INO(999)
      COMMON /ISCB/ ISCB
      REAL ISCB
      COMMON /ISCD/ ISCD
      REAL ISCD
```

```
COMMON /ISET/ ISET(250,16)
REAL ISET
COMMON /ISETD/ ISETD(250)
REAL ISETD
COMMON /L/ L
COMMON /MTRC/ MTRC
REAL MTRC
COMMON /MTRCI/ MTRCI(999)
REAL MTRCI
COMMON /MXI/ MXI
COMMON /MXL/ MXL
COMMON /MXNS/ MXNS
COMMON /NFD/ NFD(999)
REAL NFD
COMMON /NS/ NS
COMMON /OFMCA/ OFMCA(999)
COMMON /OFMCB/ OFMCB
COMMON /OFMCD/ OFMCD
COMMON /OLCP/ OLCP
COMMON /OLCT/ OLCT
COMMON /ONMC/ ONMC
COMMON /ONMCA/ ONMCA(999)
COMMON /RSC/ RSC
COMMON /SECBC/ SECBC
COMMON /SECBP/ SECBP
COMMON /SECC/ SECC
COMMON /SECDC/ SECDC
COMMON /SECDP/ SECDP
COMMON /SECIC/ SECIC
COMMON /SECII/ SECII
COMMON /SECIP/ SECIP
COMMON /SECP/ SECP
COMMON /SECR/ SECR
COMMON /SECRC/ SECRC
COMMON /SECRP/ SECRP
COMMON /SEDC/ SEDC
COMMON /SEINO/ SEINO(250)
INTEGER SEINO
COMMON /SEPC/ SEPC
COMMON /SETDC/ SETDC(250)
COMMON /STDC/ STDC
COMMON /STDCI/ STDCI
COMMON /STDCR/ STDCR
COMMON /TDC/ TDC(999)
COMMON /TERHB/ TERHB(250)
COMMON /TERHD/ TERHD(250)
COMMON /TERMH/ TERMH
```

```
      COMMON /TERMI/ TERMI
      COMMON /TIAC/ TIAC(999)
      COMMON /TUCTDC/ TUCTDC
      COMMON /USE/ USE(250,16)
      COMMON /USED/ USED(250)
      COMMON /XITEMQ/ XITEMQ(999)
C
C
      DO 220 IXXX1=1,MXL
        L=SEINO(IXXX1)
        TERHB(L)=0.
        TERHD(L)=0.
        SETDC(L)=0.
        ERHAD(L)=0.
        ISETD(L)=0.
        USED(L)=1.
        DO 210 NS=1,MXNS
          ERHAB(L,NS)=0.
          ISET(L,NS)=0.
          USE(L,NS)=1.
  210   CONTINUE
  220 CONTINUE
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        NFD(I)=0.
        ERHD(I)=0.
        XITEMQ(I)=0.
        BS(I)=0.
        TIAC(I)=0.
        TDC(I)=0.
        FPM(I)=0.
        MTRCI(I)=0.
        FPLT(I)=0.
        ONMCA(I)=0.
        OFMCA(I)=0.
        IIMCA(I)=0.
        DO 230 NS=1,MXNS
          FAIL(I,NS)=0.
  230   CONTINUE
  240 CONTINUE
      TERMH=0.
      TERMI=0.
      ISCB=0.
      ISCD=0.
      RSC=0.
      ONMC=0.
      OFMCB=0.
```

```
OFMCD=0.
SEPC=0.
SEDC=0.
TUCTDC=0.
SECII=0.
SECR=0.
IIMCB=0.
IIMCD=0.
IIMCI=0.
IIMCR=0.
OLCP=0.
OLCT=0.
AFC=0.
BSECC(1)=0.
BSECC(2)=0.
BSECC(3)=0.
BSECC(4)=0.
BSECC(5)=0.
BSECC(6)=0.
BSECP(1)=0.
BSECP(2)=0.
BSECP(3)=0.
BSECP(4)=0.
BSECP(5)=0.
BSECP(6)=0.
BOLC(1)=0.
BOLC(2)=0.
BOLC(3)=0.
BOLC(4)=0.
BOLC(5)=0.
BOLC(6)=0.
BAFC(1)=0.
BAFC(2)=0.
BAFC(3)=0.
BAFC(4)=0.
BAFC(5)=0.
BAFC(6)=0.
BISC(1)=0.
BISC(2)=0.
BISC(3)=0.
BISC(4)=0.
BISC(5)=0.
BISC(6)=0.
BRSC(1)=0.
BRSC(2)=0.
BRSC(3)=0.
BRSC(4)=0.
```

```
      BRSC(5)=0.
      BRSC(6)=0.
      BONMC(1)=0.
      BONMC(2)=0.
      BONMC(3)=0.
      BONMC(4)=0.
      BONMC(5)=0.
      BONMC(6)=0.
      BOFMC(1)=0.
      BOFMC(2)=0.
      BOFMC(3)=0.
      BOFMC(4)=0.
      BOFMC(5)=0.
      BOFMC(6)=0.
      BIIMC(1)=0.
      BIIMC(2)=0.
      BIIMC(3)=0.
      BIIMC(4)=0.
      BIIMC(5)=0.
      BIIMC(6)=0.
      AFMC=0.
      BMTRC=0.
      BTCDI=0.
      BXTRC=0.
      DMTRC=0.
      IMTRC=0.
      MTRC=0.
      SECBC=0.
      SECBP=0.
      SECC=0.
      SECDC=0.
      SECDP=0.
      SECIC=0.
      SECIP=0.
      SECP=0.
      SECRC=0.
      SECRP=0.
      STDC=0.
      STDCI=0.
      STDCR=0.
C
      RETURN
      END
```

```
      SUBROUTINE ERRCK1
C                                                              800827 110716780
C*****************************************************************************
C*  PERFORM ERROR CHECKING ON INPUT DATA FILES                                *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /COND/ COND(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LE/ LE(10)
      COMMON /LRU/ LRU(999)
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /NERRYY/ NERRYY
      COMMON /NHI/ NHI(999)
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RTS/ RTS(999)
    1 FORMAT(/5X,49HINPUT ERROR: RTS + NRTS + COND ¬= 1 FOR ITEM TYPE,I5
     +)
    2 FORMAT(/5X,70HINPUT ERROR: INDENTURE LEVEL INDICATORS (LRU & NHI)
     +NOT CONSISTENT FOR/7X,9HITEM TYPE,I5)
    3 FORMAT(/5X,70HINPUT ERROR: INDENTURE LEVEL INDICATORS (LRU & NHI)
     +NOT CONSISTENT FOR/7X,9HITEM TYPE,I5)
    4 FORMAT(/5X,47HINPUT ERROR: MTBMI CANNOT BE ZERO FOR ITEM TYPE,I5/7
     +X,25H IN OPERATING ENVIRONMENT,I5)
C
C
C
      DO 290 IXXX1=1,MXI
        I=INO(IXXX1)
        CK1=RTS(I)+NRTS(I)+COND(I)
        IF(.NOT.(CK1.GT.1.000001.OR.CK1.LT..999999)) GO TO 210
          NERRYY=NERRYY+1
          IF(PRNTXX.NE.0) WRITE( 7, 1) I
          IF(PRNTXX.NE.1) WRITE(06, 1) I
  210   CONTINUE
        IF(.NOT.(LRU(I).EQ.1)) GO TO 230
          IF(.NOT.(NHI(I).NE.0)) GO TO 220
            NERRYY=NERRYY+1
```

```
            IF(PRNTXX.NE.0) WRITE( 7, 2) I
            IF(PRNTXX.NE.1) WRITE(06, 2) I
  220     CONTINUE
  230   CONTINUE
        IF(.NOT.(LRU(I).NE.1)) GO TO 250
          IF(.NOT.(NHI(I).EQ.0)) GO TO 240
            NERRYY=NERRYY+1
            IF(PRNTXX.NE.0) WRITE( 7, 3) I
            IF(PRNTXX.NE.1) WRITE(06, 3) I
  240     CONTINUE
  250   CONTINUE
        DO 280 NP=1,MXNP
          IF(.NOT.(NITEM(I,NP).GT.0)) GO TO 270
            IF(.NOT.(MTBMI(I,LE(NP)).EQ.0)) GO TO 260
              NERRYY=NERRYY+1
              IF(PRNTXX.NE.0) WRITE( 7, 4) I,LE(NP)
              IF(PRNTXX.NE.1) WRITE(06, 4) I,LE(NP)
  260       CONTINUE
  270     CONTINUE
  280   CONTINUE
  290 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE RLCOMP
C                                                              800827 110737131
C*****************************************************************************
C*  BASELINE CHANGE                                                          *
C*  SSS MOD FOR FLOAT                                                        *
C*  SETS VALUES FOR RTS, NRTS, COND                                          *
C*  DEPENDING ON THE VALUE OF RL(I)                                          *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /BIRD/ BIRD
      COMMON /COND/ COND(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /R/ R
      INTEGER R
      COMMON /RL/ RL(999)
      INTEGER RL
      COMMON /RTS/ RTS(999)
      COMMON /WEAR/ WEAR(999)
C
C
C
      DO 360 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(R.EQ.1)) GO TO 210
          RL(I)=1
  210   CONTINUE
        IF(.NOT.(R.EQ.2)) GO TO 240
          IF(.NOT.(LRU(I).EQ.1)) GO TO 220
            RL(I)=1
  220     CONTINUE
          IF(.NOT.(LRU(I).NE.1)) GO TO 230
            RL(I)=2
  230     CONTINUE
  240   CONTINUE
        IF(.NOT.(R.EQ.3)) GO TO 270
          IF(.NOT.(LRU(I).EQ.1)) GO TO 250
            RL(I)=1
  250     CONTINUE
          IF(.NOT.(LRU(I).NE.1)) GO TO 260
            RL(I)=3
```

```
260       CONTINUE
270     CONTINUE
        IF(.NOT.(R.EQ.4)) GO TO 280
          RL(I)=2
280     CONTINUE
        IF(.NOT.(R.EQ.5)) GO TO 310
          IF(.NOT.(LRU(I).EQ.1)) GO TO 290
            RL(I)=2
290       CONTINUE
          IF(.NOT.(LRU(I).NE.1)) GO TO 300
            RL(I)=3
300       CONTINUE
310     CONTINUE
        IF(.NOT.(R.EQ.6)) GO TO 320
          RL(I)=3
320     CONTINUE
        IF(.NOT.(RL(I).EQ.1)) GO TO 330
          COND(I)=WEAR(I)
          RTS(I)=(1.-COND(I))/(1.+BIRD)
          NRTS(I)=RTS(I)*BIRD
330     CONTINUE
        IF(.NOT.(RL(I).EQ.2)) GO TO 340
          COND(I)=WEAR(I)
          RTS(I)=0.
          NRTS(I)=1-COND(I)
340     CONTINUE
        IF(.NOT.(RL(I).EQ.3)) GO TO 350
          COND(I)=1.
          RTS(I)=0.
          NRTS(I)=0.
350     CONTINUE
360   CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE OTABST
C                                                                  800827 110807712
C*****************************************************************************
C*  PRINTS SUMMARY TITLE PAGE                                                *
C*  SSS MOD LCR - 13 AUG 80                                                  *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /FINC/ FINC
      COMMON /PIUP/ PIUP
      COMMON /R/ R
      INTEGER R
      COMMON /XFPR/ XFPR
      COMMON /XFR/ XFR
      COMMON /XMIL/ XMIL
      COMMON /XUC/ XUC
    1 FORMAT(1H1///////////////44X,44(1H*)/44X,1H*,42X,1H*)
    2 FORMAT(44X,1H*,5X,21HSYSTEM OPERATING LIFE,1X,F5.2,1X,5HYEARS,4X,1
     +H*/44X,1H*,42X,1H*/44X,1H*,42X,1H*)
    3 FORMAT(44X,1H*,5X,21HREPAIR LEVEL CASE RUN,2X,I3,11X,1H*/44X,1H*,4
     +2X,1H*/44X,1H*,42X,1H*)
    4 FORMAT(44X,1H*,5X,30HSENSITIVITY MULTIPLIER FACTORS,7X,1H*/44X,1H*
     +,42X,1H*)
    5 FORMAT(44X,1H*,9X,3HXUC,1X,F14.3,15X,1H*)
    6 FORMAT(44X,1H*,9X,3HXFR,1X,F14.3,15X,1H*)
    7 FORMAT(44X,1H*,9X,4HXFPR,F14.3,15X,1H*)
    8 FORMAT(44X,1H*,9X,4HXMIL,F14.3,15X,1H*)
    9 FORMAT(44X,1H*,9X,4HFINC,F14.3,15X,1H*/44X,1H*,42X,1H*/44X,44(1H*)
     +)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      WRITE( 7, 2) PIUP
      WRITE( 7, 3) R
      WRITE( 7, 4)
      WRITE( 7, 5) XUC
      WRITE( 7, 6) XFR
      WRITE( 7, 7) XFPR
      WRITE( 7, 8) XMIL
      WRITE( 7, 9) FINC
```

```
C
      RETURN
      END
```

```
      SUBROUTINE ITAB1A
C                                                              800827 110809686
C*****************************************************************************
C*  PRINTS THE SYSTEM-WIDE SCALAR PARAMETERS                                 *
C*  READ IN FROM THE MISC. DATA FILE :PART 1                                 *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BAA/ BAA
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /DAA/ DAA
      COMMON /DLR/ DLR
      COMMON /DMF/ DMF
      COMMON /HPD2/ HPD2
      INTEGER HPD2
      COMMON /MILR/ MILR(3)
      REAL MILR
      COMMON /MRF/ MRF
      REAL MRF
      COMMON /MRO/ MRO
      REAL MRO
      COMMON /PAL1/ PAL1
      COMMON /PAL2B/ PAL2B
      COMMON /PAL2D/ PAL2D
      COMMON /PMLR/ PMLR
      COMMON /SR/ SR
      COMMON /TNLR/ TNLR
      COMMON /TORB/ TORB
      COMMON /TORD/ TORD
      COMMON /TR/ TR
      COMMON /TRAVB/ TRAVB
      COMMON /TRAV1D/ TRAV1D
    1 FORMAT(1H1/44X,44HINPUT TABLE 1: SYSTEM-WIDE SCALAR PARAMETERS///)
    2 FORMAT(50X,30HGOVERNMENT-PROVIDED PARAMETERS/)
    3 FORMAT(26X,13HLABOR FACTORS/)
    4 FORMAT(29X,59H   BAA - MONTHLY AVAILABLE WORKING HOURS PER MAINTEN
     +ANCE   /38X,50HMAN AT BASE LEVEL                                    ,
     +F14.2 )
    5 FORMAT(29X,59H   BMF - BASE MAINTENANCE FACTOR
     +       ,F14.2 )
    6 FORMAT(29X,59H   DAA - MONTHLY AVAILABLE WORKING HOURS PER MAINTEN
     +ANCE   /38X,50HMAN AT DEPOT LEVEL                                   ,
     +F14.2 )
```

```
 7 FORMAT(29X,59H   DMF - DEPOT MAINTENANCE FACTOR
  +       ,F14.2 )
 8 FORMAT(29X,59H  HPD2 - NUMBER OF HOURS SPENT BY A TYPE 2
  +       /38X,50HTRAINEE IN CLASS PER DAY                    ,
  +I14   )
 9 FORMAT(29X,59H   MRO - AVERAGE MANHOURS PER FAILURE TO COMPLETE
  +       /38X,50HON-EQUIPMENT MAINTENANCE RECORDS            ,
  +F14.2 )
10 FORMAT(29X,59H   MRF - AVERAGE MANHOURS PER FAILURE TO COMPLETE
  +       /38X,50HOFF-EQUIPMENT MAINTENANCE RECORDS           ,
  +F14.2 )
11 FORMAT(29X,59H    SR - AVERAGE MANHOURS PER FAILURE TO COMPLETE
  +       /38X,50HSUPPLY TRANSACTION RECORDS                  ,
  +F14.2 )
12 FORMAT(29X,59H  TORB - TURNOVER RATE FOR BASE MAINT. PERSONNEL
  +       ,F14.2 )
13 FORMAT(29X,59H  TORD - TURNOVER RATE FOR DEPOT MAINT. PERSONNEL
  +       ,F14.2 )
14 FORMAT(29X,59H    TR - AVERAGE MANHOURS PER FAILURE TO COMPLETE
  +       /38X,50HTRANSPORTATION TRANSACTION FORMS            ,
  +F14.2 )
15 FORMAT(1X/26X,11HLABOR RATES/)
16 FORMAT(29X,59H   BLR - BASE MAINTENANCE LABOR RATE IN $ PER HOUR
  +       ,F14.2 )
17 FORMAT(29X,59H   DLR - DEPOT MAINTENANCE LABOR RATE IN $ PER HOUR
  +       ,F14.2 )
18 FORMAT(28X,55HMILR(1) - MOD/INSTALLATION LABOR RATE DURING PRODUCT
  +ION/38X,13HIN $ PER HOUR,37X,F14.2/28X,52HMILR(2) - MOD/INSTALLATI
  +ON LABOR RATE FOR FIELD MODS/38X,30HUSING DEPOT TEAM IN $ PER HOUR
  +,20X,F14.2/28X,56HMILR(3) - MOD/INSTALLATION LABOR RATE FOR MODS P
  +ERFORMED/38X,26HAT THE DEPOT IN $ PER HOUR,24X,F14.2)
19 FORMAT(29X,59H  PAL1 - AVERAGE DAILY PAY & ALLOWANCE FOR A
  +       /38X,50HTYPE 1 TRAINEE                              ,
  +F14.2 )
20 FORMAT(29X,59H PAL2B - AVERAGE DAILY PAY & ALLOWANCE FOR A
  +       /38X,50HTYPE 2 TRAINEE                              ,
  +F14.2 )
21 FORMAT(29X,59H PAL2D - AVERAGE DAILY PAY & ALLOWANCE FOR A
  +       /38X,50HTYPE 2 DEPOT TRAINEE                        ,
  +F14.2 )
22 FORMAT(29X,59H  PMLR - PRIME MISSION EQUIP OPER LABOR RATE IN $ PE
  +R HOUR ,F14.2 )
23 FORMAT(29X,59HTRAV1D - AVERAGE TRAVEL EXPENSE FOR TYPE 1 AND TYPE
  +2      /38X,50HDEPOT TRAINEES                              ,
  +F14.2 )
24 FORMAT(29X,59H TRAVB - AVERAGE TRAVEL EXPENSE FOR TYPE 2 BASE TRAI
  +NEES   ,F14.2 )
```

```
   25 FORMAT(29X,59H  TNLR - TIMING NET OPERATOR LABOR RATE IN $ PER HOU
     +R       ,F14.2 )
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      WRITE( 7, 2)
      WRITE( 7, 3)
      WRITE( 7, 4) BAA
      WRITE( 7, 5) BMF
      WRITE( 7, 6) DAA
      WRITE( 7, 7) DMF
      WRITE( 7, 8) HPD2
      WRITE( 7, 9) MRO
      WRITE( 7,10) MRF
      WRITE( 7,11) SR
      WRITE( 7,12) TORB
      WRITE( 7,13) TORD
      WRITE( 7,14) TR
      WRITE( 7,15)
      WRITE( 7,16) BLR
      WRITE( 7,17) DLR
      WRITE( 7,18) (MILR(K1),K1=1,3)
      WRITE( 7,19) PAL1
      WRITE( 7,20) PAL2B
      WRITE( 7,21) PAL2D
      WRITE( 7,22) PMLR
      WRITE( 7,23) TRAV1D
      WRITE( 7,24) TRAVB
      WRITE( 7,25) TNLR
C
      RETURN
      END
```

```
      SUBROUTINE ITAB1B
C                                                          800827 110819685
C*************************************************************************
C*  PRINTS THE SYSTEM-WIDE SCALAR PARAMETERS                             *
C*  READ IN FROM THE MISC. DATA FILE : PART 2                            *
C*************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /ACPP/ ACPP
      COMMON /BRCT/ BRCT
      COMMON /CFG/ CFG(3)
      COMMON /CPD2/ CPD2
      COMMON /CPPC/ CPPC
      COMMON /CPPD/ CPPD(3)
      COMMON /CRCT/ CRCT
      COMMON /DAD/ DAD
      COMMON /DRCT/ DRCT(3)
      COMMON /IMC/ IMC
      REAL IMC
      COMMON /OST/ OST(3)
      COMMON /OSTC/ OSTC
      COMMON /RCPP/ RCPP
      COMMON /RMC/ RMC
      COMMON /SA/ SA
      COMMON /UCPP/ UCPP
    1 FORMAT(1H1/44X,44HINPUT TABLE 1: SYSTEM-WIDE SCALAR PARAMETERS/61X
     +,11H(CONTINUED)///)
    2 FORMAT(1X/26X,14HPIPELINE TIMES/)
    3 FORMAT(29X,59H  BRCT - BASE REPAIR CYCLE TIME IN MONTHS
     +       ,F15.3 )
    4 FORMAT(29X,59H  CRCT - TIME FOR FAILURE AT SATELLITE BASE UNTIL RE
     +PAIR   /38X,50HAT CIMF BASE IN MONTHS                              ,
     +F15.3 )
    5 FORMAT(29X,59H   DAD - TIME FROM FAILURE REMOVAL AT DEPOT UNTIL RE
     +PAIR   /38X,50HAT DEPOT IN MONTHS                                  ,
     +F15.3 )
    6 FORMAT(28X,54HDRCT(1) - TIME FROM FAILURE AT CONUS BASE UNTIL REPA
     +IR/38X,18HAT DEPOT IN MONTHS,32X,F15.3/28X,56HDRCT(2) - TIME FROM
     +FAILURE AT PACIFIC BASE UNTIL REPAIR/38X,18HAT DEPOT IN MONTHS,32X
     +,F15.3/28X,55HDRCT(3) - TIME FROM FAILURE AT EUROPE BASE UNTIL REP
     +AIR/38X,18HAT DEPOT IN MONTHS,32X,F15.3/28X,52H OST(1) - ORDER AND
     + SHIPPING TIME FROM CONUS BASE TO/38X,15HDEPOT IN MONTHS,35X,F15.3
     +/28X,54H OST(2) - ORDER AND SHIPPING TIME FROM PACIFIC BASE TO/38X
     +,15HDEPOT IN MONTHS,35X,F15.3/28X,53H OST(3) - ORDER AND SHIPPING
```

```
     +TIME FROM EUROPE BASE TO/38X,15HDEPOT IN MONTHS,35X,F15.3/28X,55H
     +  OSTC - ORDER AND SHIPPING TIME FROM A SATELLITE BASE/38X,26HTO I
     +TS CIMF BASE IN MONTHS,24X,F15.3/)
    7 FORMAT(26X,17HUNIT COST FACTORS/)
    8 FORMAT(29X,59H  ACPP - ACQUISTION COST PER PAGE FOR ORIGINAL
     +       /38X,50HNEGATIVES OF TECH. DATA                      ,
     +F15.3 )
    9 FORMAT(28X,53H CFG(1) - COST OF FUEL IN $ PER GALLON AT CONUS BASE
     +S,7X,F15.3/28X,55H CFG(2) - COST OF FUEL IN $ PER GALLON AT PACIFI
     +C BASES,5X,F15.3/28X,54H CFG(3) - COST OF FUEL IN $ PER GALLON AT
     +EUROPE BASES,6X,F15.3/28X,52H   CPD2 - COST PER CLASS PER DAY FOR
     +TYPE 2 TRAINING,8X,F15.3/28X,55H   CPPC - COST OF PACKING AND SHIP
     +PING FROM A SATELLITE/38X,47HBASE TO ITS CIMF BASE IN $ PER NET WE
     +IGHT POUND,3X,F15.3/28X,54HCPPD(1) - COST OF PACKING AND SHIPPING
     +FROM CONUS BASE/38X,34HTO DEPOT IN $ PER NET WEIGHT POUND,16X,F15.
     +3/28X,56HCPPD(2) - COST OF PACKING AND SHIPPING FROM PACIFIC BASE/
     +38X,34HTO DEPOT IN $ PER NET WEIGHT POUND,16X,F15.3/28X,55HCPPD(3)
     + - COST OF PACKING AND SHIPPING FROM EUROPE BASE/38X,34HTO DEPOT I
     +N $ PER NET WEIGHT POUND,16X,F15.3)
   10 FORMAT(29X,59H  RCPP - REPRODUCTION COST PER COPY PER PAGE OF
     +       /38X,50HTECH. DATA                                   ,
     +F15.3 )
   11 FORMAT(29X,59H   IMC - INITIAL DEPOT INVENTORY MANAGEMENT COST PER
     + NEW   /38X,50HPART IN $                                    ,
     +F15.3 )
   12 FORMAT(29X,59H   RMC - RECURRING DEPOT INVENTORY MANAGEMENT COST P
     +ER NEW /38X,50HPART IN $ PER YEAR                           ,
     +F15.3 )
   13 FORMAT(29X,59H    SA - BASE-LEVEL INVENTORY MANAGEMENT COST PER NE
     +W PART /38X,50HIN $ PER YEAR                                ,
     +F15.3 )
   14 FORMAT(29X,59H  UCPP - UPKEEP COST PER YEAR PER DISTINCT PAGE OF
     +       /38X,50HTECH. DATA                                   ,
     +F15.3 )
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      WRITE( 7, 2)
      WRITE( 7, 3) BRCT
      WRITE( 7, 4) CRCT
      WRITE( 7, 5) DAD
      WRITE( 7, 6) (DRCT(K2),K2=1,3),(OST(K3),K3=1,3),OSTC
      WRITE( 7, 7)
```

```
      WRITE( 7, 8) ACPP
      WRITE( 7, 9) (CFG(K4),K4=1,3),CPD2,CPPC,(CPPD(K5),K5=1,3)
      WRITE( 7,10) RCPP
      WRITE( 7,11) IMC
      WRITE( 7,12) RMC
      WRITE( 7,13) SA
      WRITE( 7,14) UCPP
C
      RETURN
      END
```

```
      SUBROUTINE ITAB1C
C                                                              800827 110825502
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS THE SYSTEM-WIDE SCALAR PARAMETERS                                 *
C*  READ IN FROM THE MISC. DATA FILE : PART 3                                *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BDATA/ BDATA
      INTEGER BDATA
      COMMON /BF/ BF
      COMMON /BIRD/ BIRD
      COMMON /CPD1/ CPD1
      COMMON /DDATA/ DDATA
      INTEGER DDATA
      COMMON /FSEDC/ FSEDC
      COMMON /HPD1/ HPD1
      INTEGER HPD1
      COMMON /KFAC/ KFAC(4)
      REAL KFAC
      COMMON /MUSE/ MUSE
      REAL MUSE
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /PIUP/ PIUP
      COMMON /QTYP1/ QTYP1
      INTEGER QTYP1
      COMMON /QTYP2B/ QTYP2B
      INTEGER QTYP2B
      COMMON /QTYP2D/ QTYP2D
      INTEGER QTYP2D
      COMMON /R/ R
      INTEGER R
      COMMON /SPC1/ SPC1
      INTEGER SPC1
      COMMON /SPC2/ SPC2
      INTEGER SPC2
      COMMON /TEFM/ TEFM
      COMMON /TYP2TF/ TYP2TF
      COMMON /XFPR/ XFPR
      COMMON /XFR/ XFR
      COMMON /XMIL/ XMIL
      COMMON /XUC/ XUC
```

```
 1 FORMAT(1H1/44X,44HINPUT TABLE 1: SYSTEM-WIDE SCALAR PARAMETERS/61X
  +,11H(CONTINUED)///)
 2 FORMAT(1X/26X,21HMISCELLANEOUS FACTORS/)
 3 FORMAT(28X,41H     BF - COEFFICIENT IN SPARING FUNCTION,19X,F14.2)
 4 FORMAT(29X,59H  BIRD - FRACTION OF BASE-REPAIR-INTENDED FAILURES
  +       /38X,50HREQUIRING DEPOT REPAIR                          ,
  +F14.2 )
 5 FORMAT(28X,54HKFAC(1) - FAILURE RATE EXPERIENCE FACTOR FOR AIRBORN
  +E-/38X,19HFIGHTER ENVIRONMENT,31X,F14.2/28X,54HKFAC(2) - FAILURE R
  +ATE EXPERIENCE FACTOR FOR AIRBORNE-/38X,17HCARGO ENVIRONMENT,33X,F
  +14.2/28X,52HKFAC(3) - FAILURE RATE EXPERIENCE FACTOR FOR GROUND-/3
  +8X,31HFIXED/TRANSPORTABLE ENVIRONMENT,19X,F14.2/28X,52HKFAC(4) - F
  +AILURE RATE EXPERIENCE FACTOR FOR GROUND-/38X,18HMOBILE ENVIRONMEN
  +T,32X,F14.2)
 6 FORMAT(29X,59H  MUSE - MINIMUM FRACTIONAL UTILIZATION FOR SENSITIV
  +ITY    /38X,50HCALCULATIONS ON SUPPORT EQUIPMENT COSTS          ,
  +F14.2 )
 7 FORMAT(29X,59H  NRUC - NUMBER OF YEARS OF REPLACEMENT SPARES TO BE
  +       /38X,50HPROVIDED UNDER THE SSS PRODUCTION CONTRACT(S)    ,
  +F14.2 )
 8 FORMAT(29X,59H  PIUP - NUMBER OF SYSTEM OPERATING YEARS
  +       ,F14.2 )
 9 FORMAT(29X,59H QTYP1 - NUMBER OF TYPE 1 TRAINEES
  +       ,I14   )
10 FORMAT(29X,59HQTYP2B - NUMBER OF TYPE 2 BASE TRAINEES
  +       ,I14   )
11 FORMAT(29X,59HQTYP2D - NUMBER OF TYPE 2 DEPOT TRAINEES
  +       ,I14   )
12 FORMAT(29X,59H     R - REPAIR LEVEL CASE RUN NUMBER
  +       ,I14   )
13 FORMAT(29X,59H  SPC2 - MAXIMUM NUMBER OF TYPE 2 TRAINEES PER CLASS
  +       ,I14   )
14 FORMAT(29X,59HTYP2TF - RATIO OF TYPE 2 TRAINING TIME TO TYPE 1
  +       /38X,50HTRAINING TIME                                   ,
  +F14.2 )
15 FORMAT(29X,59H  XFPR - FALSE PULL RATE SENSITIVITY MUTIPLIER FACTO
  +R      ,F14.2 )
16 FORMAT(29X,59H   XFR - FAILURE RATE SENSITIVITY MULTIPLIER FACTOR
  +       ,F14.2 )
17 FORMAT(29X,59H  XMIL - MOD/I LABOR HOURS SENSITIVITY MULTIPLIER FA
  +CTOR   ,F14.2 )
18 FORMAT(29X,59H   XUC - UNIT COST SENSITIVITY MULTIPLIER FACTOR
  +       ,F14.2 )
19 FORMAT(1H1/44X,44HINPUT TABLE 1: SYSTEM-WIDE SCALAR PARAMETERS/61X
  +,11H(CONTINUED)///)
20 FORMAT(1X,50X,34HCONTRACTOR - DETERMINED PARAMETERS//)
21 FORMAT(29X,59H BDATA - NUMBER OF TECH. DATA PAGES FOR BASE MAINT.
```

```
     +AND    /38X,50HNOT ITEM OR SE SPECIFIC                              ,
     +I14   )
   22 FORMAT(29X,59H  CPD1 - COST PER CLASS PER DAY FOR TYPE 1 TRAINING
     +       ,F14.2 )
   23 FORMAT(29X,59H DDATA - NUMBER OF TECH. DATA PAGES FOR DEPOT MAINT.
     +       /38X,50HAND NOT ITEM OR SE SPECIFIC                          ,
     +I14   )
   24 FORMAT(29X,59H FSEDC - TOTAL COST OF FULL SCALE ENGINEERING
     +       /38X,50HDEVELOPMENT PROGRAM                                  ,
     +F14.2 )
   25 FORMAT(29X,59H  HPD1 - NUMBER OF CLASS HOURS PER DAY FOR A TYPE 1
     +       /38X,50HTRAINING CLASS                                       ,
     +I14   )
   26 FORMAT(29X,59H  SPC1 - MAXIMUM NUMBER OF TYPE 1 TRAINEES PER CLASS
     +       ,I14   )
   27 FORMAT(29X,59H  TEFM - COST OF TRAINING EQUIPMENT, FACILITIES AND
     +       /38X,50HMANUALS                                              ,
     +F14.2 )
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      WRITE( 7, 2)
      WRITE( 7, 3) BF
      WRITE( 7, 4) BIRD
      WRITE( 7, 5) (KFAC(K2),K2=1,4)
      WRITE( 7, 6) MUSE
      WRITE( 7, 7) NRUC
      WRITE( 7, 8) PIUF
      WRITE( 7, 9) QTYP1
      WRITE( 7,10) QTYP2B
      WRITE( 7,11) QTYP2D
      WRITE( 7,12) R
      WRITE( 7,13) SPC2
      WRITE( 7,14) TYP2TF
      WRITE( 7,15) XFPR
      WRITE( 7,16) XFR
      WRITE( 7,17) XMIL
      WRITE( 7,18) XUC
      WRITE( 7,19)
      WRITE( 7,20)
      WRITE( 7,21) BDATA
      WRITE( 7,22) CPD1
      WRITE( 7,23) DDATA
```

```
      WRITE( 7,24) FSEDC
      WRITE( 7,25) HPD1
      WRITE( 7,26) SPC1
      WRITE( 7,27) TEFM
C
      RETURN
      END
```

```
      SUBROUTINE ITAB2
C                                                                  800827 110836539
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS BASE CONFIGURATION DATA                                           *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BNOUN/ BNOUN(16,16)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BSP/ BSP(16)
      INTEGER BSP
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /LO/ LO(16)
      COMMON /MXNS/ MXNS
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NHB/ NHB(16)
      COMMON /NS/ NS
      COMMON /TNB/ TNB(16)
    1 FORMAT(1H1/28X,39HINPUT TABLE 2:  BASE CONFIGURATION DATA/// 58X,4
     +HNEXT,6X,3HNO.,5X,4HBASE,6X,4HBASE/2X,4HBASE,9X,4HBASE,10X,6HNO. O
     +F,3X,7HLOC. OF,4X,4HBASE,4X,6HHIGHER,4X,5HUNDER,4X,5HPLAT-,3X,7HSU
     +PPORT/2X,5HINDEX,8X,4HNAME,10X,5HBASES,5X,4HBASE,6X,4HTYPE,5X,4HBA
     +SE,6X,4HCIMF,4X,5HFORMS,2X,10HPHILOSOPHY/3X,4H(NS),7X,7H(BNOUN),8X
     +,5H(TNB),5X,4H(LO),5X,7H(BTYPE),3X,5H(NHB),4X,5H(NBC),3X,7H(BPLAT)
     +,3X,5H(BSP)/)
    2 FORMAT(3X,I2,4X,16A1,4X,F4.0,7X,I2,8X,I2,7X,I2,6X,F4.1,6X,I2,8X,I2
     +)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      DO 210 NS=1,MXNS
        WRITE( 7, 2) NS,(BNOUN(NS,I1),I1=1,16),TNB(NS),LO(NS),BTYPE(NS),
     +    NHB(NS),NBC(NS),BPLAT(NS),BSP(NS)
  210 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB3
C                                                              800827 110846772
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS PLATFORM OPERATION DATA FILE                                      *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /AMPM/ AMPM(10,3)
      COMMON /APFH/ APFH(10,3)
      COMMON /FGH/ FGH(10)
      COMMON /LE/ LE(10)
      COMMON /M/ M
      COMMON /MMPD/ MMPD(10,3)
      REAL MMPD
      COMMON /MMPM/ MMPM(10)
      REAL MMPM
      COMMON /MXNP/ MXNP
      COMMON /NP/ NP
      COMMON /PNOUN/ PNOUN(10,12)
      COMMON /TFAC/ TFAC(10)
      COMMON /THRS/ THRS(10)
    1 FORMAT(1H1/44X,39HINPUT TABLE 3:  PLATFORM OPERATION DATA///2X,5HP
     +LAT-,16X,3HEN-,2X,20H*OPERATING HOURS IN*,6HUTILI-,1X,5HACTI-,1X,2
     +0H*MISSIONS PER MONTH*,4X,11HOTHER HOURS,4X,1H*,6HTHRUST,2X,7HGALL
     +ONS/2X,4HFORM,3X,8HPLATFORM,6X,6HVIRON*,18(1H-),7H*ZATION,1X,7HVAT
     +ION*,18(1H-),1H*,19(1H-),1H*,1X,2HIN,6X,3HPER/2X,5HINDEX,2X,12HNOM
     +ENCLATURE,2X,4HMENT,1X,20H*CONUS PACIF EUROPE*,6HFACTOR,1X,4HTIME,
     +2X,20H*CONUS PACIF EUROPE*,20H CONUS PACIF EUROPE*,6HPOUNDS,2X,7HO
     +PER HR/2X,4H(NP),4X,7H(PNOUN),6X,4H(LE),9X,6H(APFH),6X,6H(TFAC),1X
     +,6H(MMPM),8X,6H(AMPM),13X,6H(MMPD),8X,6H(THRS),3X,5H(FGH)/)
    2 FORMAT(2X,I3,3X,12A1,3X,I2,3X,F5.0,1X,F5.0,1X,F5.0,4X,F4.2,2X,F4.1
     +,3X,F5.1,1X,F5.1,1X,F5.1,1X,F6.1,1X,F6.1,1X,F6.1,1X,F8.0,1X,F6.0)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      DO 210 NP=1,MXNP
        WRITE( 7, 2) NP,(PNOUN(NP,K1),K1=1,12),LE(NP),(APFH(NP,M),M=1,
     +    3),TFAC(NP),MMPM(NP),(AMPM(NP,M),M=1,3),(MMPD(NP,M),M=1,3),
     +    THRS(NP),FGH(NP)
```

```
  210 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB4
C                                                              800827 110850998
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS PLATFORM TERMINAL COST AND INITIAL                                *
C*  MOD/INSTALLATION DATA FILE                                               *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /DRAG/ DRAG(10)
      COMMON /FR/ FR(3,10)
      COMMON /INTNR/ INTNR(10)
      REAL INTNR
      COMMON /INTR/ INTR(10)
      REAL INTR
      COMMON /K/ K(10)
      REAL K
      COMMON /M/ M
      COMMON /MXNP/ MXNP
      COMMON /NAE/ NAE(10)
      REAL NAE
      COMMON /NP/ NP
      COMMON /NRMI/ NRMI(10)
      REAL NRMI
      COMMON /NTRMP/ NTRMP(10)
      REAL NTRMP
      COMMON /PDIV/ PDIV(10)
    1 FORMAT(1H1/27X,76HINPUT TABLE 4:  PLATFORM TERMINAL DATA & NON-REC
     +URRING MOD/INSTALLATION DATA//43X,23HIN THOUSANDS OF DOLLARS///10X
     +,3HNO.,43X,5HPLAT-,21X,3HNO.,5X,4HLBS.,4X,6HTHRUST/2X,5HPLAT-,3X,3
     +HPME,7X,4HNON-,32X,4HFORM,3X,18H*FRACTION MODS IN*,1X,5HADDED,3X,4
     +HDRAG,4X,5H-FUEL/2X,4HFORM,4X,4HTER-,6X,6HRECUR.,5X,6HRECUR.,5X,10
     +HNON-RECUR.,4X,6HDIVER-,1X,1H*,16(1H-),1H*,1X,5HANTEN,3X,3HPER,5X,
     +6HCNSMPT/2X,5HINDEX,3X,6HMINALS,4X,5HINTEG,6X,5HINTEG,6X,10HMOD/I
     +COST,4X,4HSITY,3X,18H*PROD FIELD DEPOT*,1X,3HNAS,5X,5HANTEN,3X,6HF
     +ACTOR/2X,4H(NP),4X,7H(NTRMP),3X,7H(INTNR),4X,6H(INTR),7X,6H(NRMI),
     +6X,6H(PDIV),8X,4H(FR),8X,5H(NAE),3X,6H(DRAG),3X,3H(K)/)
    2 FORMAT(2X,I3,5X,F5.2,3X,F10.3,1X,F9.3,2X,F10.3,5X,F5.2,3X,2(F4.2,2
     +X),F4.2,3X,F5.2,3X,F5.1,4X,F5.2)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
```

```
C
      WRITE( 7, 1)
      DO 210 NP=1,MXNP
        T1=INTNR(NP)/1000
        T2=INTR(NP)/1000
        T3=NRMI(NP)/1000
        WRITE( 7, 2) NP,NTRMP(NP),T1,T2,T3,PDIV(NP),(FR(M,NP),M=1,3),
     +    NAE(NP),DRAG(NP),K(NP)
  210 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB5
C                                                              800827 110902735
C*****************************************************************************
C*  PRINTS PLATFORM RECURRING MOD/INSTALLATION LABOR HOURS BY MODE AND *
C*  DATA FILE                                                         *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /AKIT/ AKIT(4,10)
      COMMON /IA/ IA
      COMMON /M/ M
      COMMON /MIFIX/ MIFIX(3,10)
      REAL MIFIX
      COMMON /MIMH/ MIMH(4,3,10)
      REAL MIMH
      COMMON /MXNP/ MXNP
      COMMON /NP/ NP
    1 FORMAT(1H1,35X,56HINPUT TABLE 5:  PLATFORM RECURRING MOD/INSTALLAT
     +ION DATA///57X,1H*,13X,45HMOD/INSTALLATION LABOR HOURS BY MODE AND
     + AREA,12X,1H*/2X,5HPLAT-,2X,19H*FIXED MOD/I COST *,7X,15HAKIT EQUI
     +P COST,7X,1H*,70(1H-),1H*/2X,4HFORM,3X,1H*,17(1H-),1H*,2X,25(1H-),
     +2X,1H*,5X,12H**PROD MOD**,5X,1H*,5X,13H**FIELD MOD**,5X,1H*,6X,13H
     +**DEPOT MOD**,4X,1H*/2X,5HINDEX,2X,5H*PROD,1X,5HFIELD,1X,5HDEPOT,1
     +X,1H*,2X,5HANTNA,1X,6HELCBOX,1X,6HCNTLHD,1X,5HCABLE,2X,5H*ANTN,2X,
     +4HELBX,2X,4HCTLH,2X,10HCBL * ANTN,2X,4HELBX,2X,4HCTLH,2X,10HCBL *
     +ANTN,2X,4HELBX,2X,4HCTLH,2X,3HCBL,1X,1H*/2X,4H(NP),7X,8H(MIFIX)*,1
     +9X,6H(AKIT),4X,6H(MIMH)/)
    2 FORMAT(3X,I3,2X,7(F6.0,1X),12F6.0)
    3 FORMAT(//2X,25H* IN THOUSANDS OF DOLLARS)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      DO 210 NP=1,MXNP
        WRITE( 7, 2) NP,(MIFIX(M,NP),M=1,3),(AKIT(IA,NP),IA=1,4),
     +    ((MIMH(IA,M,NP),IA=1,4),M=1,3)
  210 CONTINUE
      WRITE( 7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE ITAB6
C                                                                  800827 110916757
C*****************************************************************************
C*  PRINTS PLATFORM DEPLOYMENT AT BASES                                      *
C*  DATA FILE                                                                *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /MXNP/ MXNP
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
    1 FORMAT(1H1,8X,58HINPUT TABLE 6:  PLATFORM DEPLOYMENT AT BASES - NP
     +LT(NP,NS)//1X,5HPLAT-/1X,4HFORM,3X,74HAVERAGE NUMBER OF PLATFORMS
     +OF GIVEN TYPE AT EACH BASE WITHIN GROUPS BELOW/1X,5HINDEX,2X,122(1
     +H-)/1X,4H(NP),16X,1H1,5X,1H2,5X,1H3,5X,1H4,5X,1H5,5X,1H6,5X,1H7,5X
     +,1H8,5X,1H9,4X,2H10,4X,2H11,4X,2H12,4X,2H13,4X,2H14,4X,2H15,4X,2H1
     +6/)
    2 FORMAT(1X,I3,14X,16(F5.2,1X))
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      DO 210 NP=1,MXNP
        WRITE( 7, 2) NP,(NPLT(NP,NS),NS=1,16)
  210 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB7
C                                                              800827 110922178
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS SUPPORT EQUIPMENT DATA                                            *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /CSE/ CSE(250)
      COMMON /DATAS/ DATAS(250)
      INTEGER DATAS
      COMMON /L/ L
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXL/ MXL
      COMMON /SEDEV/ SEDEV(250)
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SENOUN/ SENOUN(250,20)
      COMMON /SENUM/ SENUM(250,12)
      COMMON /SETYPE/ SETYPE(250)
      INTEGER SETYPE
    1 FORMAT(1H1,44X,38HINPUT TABLE 7:  SUPPORT EQUIPMENT DATA///58X,8HF
     +RACTION,5X,14HCOM.ON-SITE(1),4X,9HNUMBER OF,5X,2HSE/3X,2HSE,42X,7H
     +SE UNIT,4X,9HUNIT COST,4X,14HCOM.PROCUR.(2),4X,10HTECH ORDER,2X,6H
     +DEVMNT/2X,5HINDEX,4X,15HSE NOMENCLATURE,7X,11HSE PART NO.,5X,4HCOS
     +T,4X,11HTO MAINTAIN,3X,11HPECULIAR(3),8X,5HPAGES,8X,4HCOST/3X,3H(L
     +),9X,8H(SENOUN),11X,7H(SENUM),7X,5H(CSE),7X,5H(MSE),7X,8H(SETYPE),
     +9X,7H(DATAS),5X,7H(SEDEV)/)
    2 FORMAT(3X,I3,3X,20A1,1X,12A1,4X,F7.0,7X,F5.3,10X,I2,14X,I3,4X,F8.0
     +)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      DO 210 IXXX1=1,MXL
        L=SEINO(IXXX1)
        WRITE( 7, 2) L,(SENOUN(L,I1),I1=1,20),(SENUM(L,I2),I2=1,12),
     +    CSE(L),MSE(L),SETYPE(L),DATAS(L),SEDEV(L)
  210 CONTINUE
C
```

```
      RETURN
      END
```

```
      SUBROUTINE ITAB8
C                                                                  800827 110938835
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS ITEM EQUIPMENT DATA                                               *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /GFE/ GFE(999)
      INTEGER GFE
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /INOUN/ INOUN(999,24)
      REAL INOUN
      COMMON /INTEG/ INTEG(999)
      REAL INTEG
      COMMON /LFAC/ LFAC(999)
      REAL LFAC
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /NHI/ NHI(999)
      COMMON /PA/ PA(999)
      COMMON /PTNUM/ PTNUM(999,12)
      COMMON /RM/ RM(999)
      COMMON /UP/ UP(999)
      COMMON /WT/ WT(999)
    1 FORMAT(1H1/48X,35HINPUT TABLE 8:  ITEM EQUIPMENT DATA)
    2 FORMAT(61X,11H(CONTINUED))
    3 FORMAT(//62X,6HLRU(1),3X,4HNEXT,5X,3HGFE,5X,5HINTE-,5X,4HITEM,5X,6
     +HREPAIR,14X,5HPIECE/2X,4HITEM,47X,5HLEARN,6X,2HOR,4X,6HHIGHER,4X,5
     +HINDI-,3X,7HGRATION,3X,4HUNIT,4X,9HMATERIALS,4X,4HITEM,4X,4HPART/2
     +X,5HINDEX,9X,12HNOMENCLATURE,9X,11HPART NUMBER,6X,4HRATE,4X,6HSRU(
     +0),3X,4HITEM,5X,5HCATOR,5X,5HITEMS,4X,4HCOST,5X,6HFACTOR,5X,6HWEIG
     +HT,2X,5HCOUNT /3X,3H(I),12X,7H(INOUN),14X,7H(PTNUM),7X,6H(LFAC),3X
     +,5H(LRU),4X,5H(NHI),4X,5H(GFE),3X,7H(INTEG),3X,4H(UP),6X,4H(RM),7X
     +,4H(WT),4X,4H(PA)/)
    4 FORMAT(4X,I3,3X,24A1,1X,12A1,6X,F4.2,6X,I2,6X,I3,7X,I2,7X,I2,4X,F7
     +.0,6X,F4.3,5X,F6.2,3X,F5.2)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
```

```
      IPAGE=40
      IFLAG=1
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
        WRITE( 7, 4) I,(INOUN(I,K1),K1=1,24),(PTNUM(I,K2),K2=1,12),
     +    LFAC(I),LRU(I),NHI(I),GFE(I),INTEG(I),UP(I),RM(I),WT(I),PA(I)
        IFLAG=0
        IPAGE=IPAGE+1
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB9A
C                                                                  800827 111003895
C*****************************************************************************
C*  PRINTS ITEM MAINTENANCE DATA                                             *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BCMH/ BCMH(999)
      COMMON /BMH/ BMH(999)
      COMMON /COND/ COND(999)
      COMMON /DMH/ DMH(999)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IPCF/ IPCF(999)
      REAL IPCF
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RIP/ RIP(999)
      COMMON /RL/ RL(999)
      INTEGER RL
      COMMON /RMH/ RMH(999)
      COMMON /RTS/ RTS(999)
    1 FORMAT(1H1/47X,39H INPUT TABLE 9A:  ITEM MAINTENANCE DATA)
    2 FORMAT(61X,11H(CONTINUED))
    3 FORMAT(//58X,8HFRACTION,10X,19H                    ,1X,7HFAILURE,1X
     +,4HBASE,1X,2HLV/6X,1H*,5X,34HMEAN TIME BETWEEN MAINT. INCIDENTS,5X
     +,6H*FALSE,1X,8HFAILURES,1X,8HCOST PER,2X,19HFRACTION FAILURES  ,6H
     +REMOVE,2X,5HBENCH,3X,7HBASE LV,1X,5HDEPOT/1X,6HITEM *,1X,43(1H-),5
     +H*PULL,2X,8HREPAIRED,1X,8HIN PLACE,2X,18H   REPAIRED AT    ,1X,7HR
     +EPLACE,1X,5HCHECK,3X,6HREPAIR,2X,6HREPAIR,1X,4HR.L./1X,5HINDEX,13H
     +*AIR-FIGHTER*,10HAIR-CARGO*,11HGRND-FIXED*,12HGRND-MOBILE*,4HRATE,
     +2X,8HIN PLACE,2X,6HREPAIR,2X,20H BASE DEPOT   COND  ,7HMAN HRS,1X,
     +7HMAN HRS,1X,7HMAN HRS,1X,6HMAN HR,1X,4HCODE/2X,3H(I),3X,8H(MTBMI1
     +),3X,8H(MTBMI2),3X,8H(MTBMI3),3X,8H(MTBMI4),3X,5H(FPR),2X,5H(RIP),
     +4X,6H(IPCF),2X,20H(RTS) (NRTS) (COND) ,2X,5H(RMH),2X,6H(BCMH),3X,5
     +H(BMH),3X,5H(DMH),1X,4H(RL)/)
    4 FORMAT(1X,I3,3X,F9.0,3(2X,F9.0),3X,F4.3,4X,F4.2,3X,F6.2,3X,F5.3,2X
     +,F5.3,2X,F5.3,2X,3(F5.2,3X),F5.2,1X,I4)
C
C
```

```
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IPAGE=40
      IFLAG=1
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
        WRITE( 7, 4) I,(MTBMI(I,K1),K1=1,4),FPR(I),RIP(I),IPCF(I),
     +    RTS(I),NRTS(I),COND(I),RMH(I),BCMH(I),BMH(I),DMH(I),RL(I)
        IFLAG=0
        IPAGE=IPAGE+1
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB9B
C                                                              800827 111005143
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS ITEM REPAIR HOURS,TECH ORDER AND TR. DATA                         *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /DATAB/ DATAB(999)
      INTEGER DATAB
      COMMON /DATAD/ DATAD(999)
      INTEGER DATAD
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /TIME1/ TIME1(999)
      INTEGER TIME1
      COMMON /UCTDEV/ UCTDEV(999)
    1 FORMAT(1H1/5X,43HINPUT TABLE 9B:  TECHNICAL ORDERS, TRAINING/22X,1
     +9HAND UCT DEVELOPMENT)
    2 FORMAT(28X,11H(CONTINUED))
    3 FORMAT(//15X,32HNUMBER OF TECH.     NO. OF HOURS,5X,3HUCT/5X,4HITE
     +M,6X,30HDATA PAGES FOR      FOR TYPE 1,6X,6HDEVMNT/5X,5HINDEX,5X,5
     +HDEPOT,5X,4HBASE,6X,8HTRAINING,9X,4HCOST/6X,3H(I),5X,16H(DATAD)  (
     +DATAB),5X,7H(TIME1),8X,8H(UCTDEV)/)
    4 FORMAT(6X,I3,7X,I3,6X,I3,9X,I3,9X,F7.0)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IPAGE=40
      IFLAG=1
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
```

```
          WRITE( 7, 4) I,DATAD(I),DATAB(I),TIME1(I),UCTDEV(I)
          IFLAG=0
          IPAGE=IPAGE+1
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITB10A
C                                                              800827 111010553
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS ITEM/SUPPORT EQUIPMENT CROSS-REFERENCE                            *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /NJA/ NJA(999,4)
      COMMON /QSA/ QSA(999,4,30)
    1 FORMAT(1H1/23X,66HINPUT TABLE 10A: ITEM/SE CROSS REFERENCE DATA -
     +DEPOT LEVEL REPAIR)
    2 FORMAT(41X,11H(CONTINUED))
    3 FORMAT(//7X,5HNUMB./7X,5HOF SE,2X,2HSE,17(4X,2HSE)/1X,4HITEM,2X,4H
     +TYPE, 9(1X,5HINDEX,1X,5HQUAN-)/1X,5HINDEX,1X,5HREQRD,2X,3HNO.,2X,4
     +HTITY,8(3X,3HNO.,2X,4HTITY)/2X,3H(I),2X,5H(NJA), 9(2X,3H(A),2X,5H(
     +QSA))/)
    4 FORMAT(2X,I3,3X,I3,28(9(2X,I4,2X,F4.0)/))
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IFLAG=1
      IPAGE=40
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
          IPAGE=1
```

```
  220   CONTINUE
        DO 230 IRMT=1,MXIRMT
          IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 230
          N=NJA(I,IRMT)
          WRITE( 7, 4) I,NJA(I,IRMT),(A(I,IRMT,K2),QSA(I,IRMT,K2),K2=1,
     +      N)
  230   CONTINUE
        IFLAG=0
        IPAGE=IPAGE+1
  240 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITB10B
C                                                                  800827 111019594
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS ITEM/SUPPORT EQUIPMENT CROSS-REFERENCE                            *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /NJA/ NJA(999,4)
      COMMON /QSA/ QSA(999,4,30)
    1 FORMAT(1H1/23X,68HINPUT TABLE 10B: ITEM/SE CROSS REFERENCE DATA -
     +BASE LEVEL, PSE ONLY)
    2 FORMAT(41X,11H(CONTINUED))
    3 FORMAT(//7X,5HNUMB./7X,5HOF SE,2X,2HSE,17(4X,2HSE)/1X,4HITEM,2X,4H
     +TYPE, 9(1X,5HINDEX,1X,5HQUAN-)/1X,5HINDEX,1X,5HREQRD,2X,3HNO.,2X,4
     +HTITY,8(3X,3HNO.,2X,4HTITY)/2X,3H(I),2X,5H(NJA), 9(2X,3H(A),2X,5H(
     +QSA))/)
    4 FORMAT(2X,I3,3X,I3,28(9(2X,I4,2X,F4.0)/))
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IFLAG=1
      IPAGE=40
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
          IPAGE=1
```

```
  220   CONTINUE
        DO 230 IRMT=1,MXIRMT
          IF(.NOT.(IRMIN(I,IRMT).EQ.2)) GO TO 230
          N=NJA(I,IRMT)
          WRITE( 7, 4) I,NJA(I,IRMT),(A(I,IRMT,K2),QSA(I,IRMT,K2),K2=1,
     +      N)
  230   CONTINUE
        IFLAG=0
        IPAGE=IPAGE+1
  240 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITB10C
C                                                              800827 111024229
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS ITEM/SUPPORT EQUIPMENT CROSS-REFERENCE                            *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /NJA/ NJA(999,4)
      COMMON /QSA/ QSA(999,4,30)
    1 FORMAT(1H1/23X,63HINPUT TABLE 10C: ITEM/SE CROSS REFERENCE DATA -
     +BASE LEVEL, MBS)
    2 FORMAT(41X,11H(CONTINUED))
    3 FORMAT(//7X,5HNUMB./7X,5HOF SE,2X,2HSE,17(4X,2HSE)/1X,4HITEM,2X,4H
     +TYPE, 9(1X,5HINDEX,1X,5HQUAN-)/1X,5HINDEX,1X,5HREQRD,2X,3HNO.,2X,4
     +HTITY,8(3X,3HNO.,2X,4HTITY)/2X,3H(I),2X,5H(NJA), 9(2X,3H(A),2X,5H(
     +QSA))/)
    4 FORMAT(2X,I3,3X,I3,28(9(2X,I4,2X,F4.0)/))
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IFLAG=1
      IPAGE=40
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
          IPAGE=1
```

```
  220   CONTINUE
        DO 230 IRMT=1,MXIRMT
          IF(.NOT.(IRMIN(I,IRMT).EQ.3)) GO TO 230
          N=NJA(I,IRMT)
          WRITE( 7, 4) I,NJA(I,IRMT),(A(I,IRMT,K2),QSA(I,IRMT,K2),K2=1,
     +       N)
  230   CONTINUE
        IFLAG=0
        IPAGE=IPAGE+1
  240 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITB10D
C                                                              800827 111030349
C*****************************************************************************
C*  SSS MOD LCR                                                              *
C*  PRINTS ITEM/SUPPORT EQUIPMENT CROSS-REFERENCE                            *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /NJA/ NJA(999,4)
      COMMON /QSA/ QSA(999,4,30)
    1 FORMAT(1H1/23X,63HINPUT TABLE 10D: ITEM/SE CROSS REFERENCE DATA -
     +BASE LEVEL, UCT)
    2 FORMAT(41X,11H(CONTINUED))
    3 FORMAT(//7X,5HNUMB./7X,5HOF SE,2X,2HSE,17(4X,2HSE)/1X,4HITEM,2X,4H
     +TYPE, 9(1X,5HINDEX,1X,5HQUAN-)/1X,5HINDEX,1X,5HREQRD,2X,3HNO.,2X,4
     +HTITY,8(3X,3HNO.,2X,4HTITY)/2X,3H(I),2X,5H(NJA), 9(2X,3H(A),2X,5H(
     +QSA))/)
    4 FORMAT(2X,I3,3X,I3,28(9(2X,I4,2X,F4.0)/))
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IFLAG=1
      IPAGE=40
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
          IPAGE=1
```

```
  220   CONTINUE
        DO 230 IRMT=1,MXIRMT
          IF(.NOT.(IRMIN(I,IRMT).EQ.4)) GO TO 230
          N=NJA(I,IRMT)
          WRITE( 7, 4) I,NJA(I,IRMT),(A(I,IRMT,K2),QSA(I,IRMT,K2),K2=1,
     +       N)
  230   CONTINUE
        IFLAG=0
        IPAGE=IPAGE+1
  240 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB11
C                                                          800827 111046239
C**********************************************************************
C*  PRINTS ITEM CONFIGURATIONS ON PLATFORMS DATA FILE                 *
C**********************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
    1 FORMAT(1H1/4X,64HINPUT TABLE 11:  ITEM CONFIGURATIONS ON PLATFORMS
     + - NITEM(I,NP) )
    2 FORMAT(29X,11H(CONTINUED))
    3 FORMAT(//2X,4HITEM,15X,47HAVE. NUMBER OF ITEMS INSTALLED ON PLATFO
     +RM TYPE/2X,5HINDEX,3X,69(1H-)/3X,3H(I), 12X,1H1,5X,1H2,5X,1H3,5X,1
     +H4,5X,1H5,5X,1H6,5X,1H7,5X,1H8,5X,1H9,5X,2H10/)
    4 FORMAT(3X,I3,9X,10(F5.2,1X))
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IFLAG=1
      IPAGE=40
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
        WRITE( 7, 4) I,(NITEM(I,NP),NP=1,10)
        IFLAG=0
        IPAGE=IPAGE+1
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZFAIL
C                                                                  800827 111105266
C*********************************************************************************
C*  COMPUTES AUXILIARY VARIABLE FAIL(I,NS)                                       *
C*********************************************************************************
C
      COMMON /APFH/ APFH(10,3)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /KFAC/ KFAC(4)
      REAL KFAC
      COMMON /LE/ LE(10)
      COMMON /LO/ LO(16)
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /RIP/ RIP(999)
      COMMON /TFAC/ TFAC(10)
      COMMON /XFR/ XFR
C
C
      DO 230 NS=1,MXNS
        DO 220 IXXX2=1,MXI
          I=INO(IXXX2)
          DO 210 NP=1,MXNP
            IF(.NOT.(NITEM(I,NP).GT..000001)) GO TO 210
            FL=NITEM(I,NP)*(1.-RIP(I))*NPLT(NP,NS)*APFH(NP,LO(NS))*
     +        TFAC(NP)*KFAC(LE(NP))*XFR/MTBMI(I,LE(NP))
            FAIL(I,NS)=FAIL(I,NS)+FL
  210     CONTINUE
  220   CONTINUE
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZNFB
C
C                                                                    800827 111120316
C*********************************************************************************
C*  COMPUTES PIPELINE SPARES NFB(I,NS) AT BASE NS                                *
C*  AND NFD(I) AT THE DEPOT                                                      *
C*********************************************************************************
C
      COMMON /B/ B
      INTEGER B
      COMMON /BRCT/ BRCT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /COND/ COND(999)
      COMMON /CRCT/ CRCT
      COMMON /DAD/ DAD
      COMMON /DRCT/ DRCT(3)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NFB/ NFB(999,16)
      REAL NFB
      COMMON /NFD/ NFD(999)
      REAL NFD
      COMMON /NHB/ NHB(16)
      COMMON /NHI/ NHI(999)
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /NS/ NS
      COMMON /OST/ OST(3)
      COMMON /OSTC/ OSTC
      COMMON /RTS/ RTS(999)
      COMMON /TNB/ TNB(16)
      COMMON /XFPR/ XFPR
      REAL NHNRT
      REAL NHRT
C
C
      DO 270 IXXX1=1,MXI
        I=INO(IXXX1)
        XF=XFPR*FPR(I)
```

```
        NHRT=0.
        NHNRT=0.
        IF(.NOT.(NHI(I).NE.0)) GO TO 210
          NHRT=RTS(NHI(I))
          NHNRT=NRTS(NHI(I))
  210   CONTINUE
        DO 260 NS=1,MXNS
          SFL=0.
          IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 220
C
C.....COMPUTE SATELLITE BASE FAILURES
            NFB(I,NS)=FAIL(I,NS)*FLOAT(LRU(I))*(1.+XF)*OSTC
  220     CONTINUE
          IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 240
C
C.....COMPUTE BASE FAILURES FROM SATELLITES
            TEM01=0.
            DO 230 B=1,MXNS
              IF(.NOT.(NHB(B).EQ.NS)) GO TO 230
              TEM01=TEM01+FAIL(I,B)*NBC(B)
  230       CONTINUE
            SFL=TEM01
            SFL=SFL*(FLOAT(LRU(I))+NHRT)*((RTS(I)+XF)*CRCT+(NRTS(I)+
     +        COND(I))*(OST(LO(NS))+U(XF)*CRCT))
  240     CONTINUE
          IF(.NOT.(BTYPE(NS).LT.3)) GO TO 250
            NFB(I,NS)=FAIL(I,NS)*(FLOAT(LRU(I))+NHRT)*((RTS(I)+XF)*BRCT+
     +        (NRTS(I)+COND(I))*OST(LO(NS)))+SFL
  250     CONTINUE
          NFD(I)=NFD(I)+FAIL(I,NS)*TNB(NS)*((FLOAT(LRU(I))+NHRT)*NRTS(I)
     +      *DRCT(LO(NS))+NHNRT*(1.-COND(I))*DAD)
  260   CONTINUE
  270 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZERHB
C                                                          800827 111133346
C*************************************************************************
C*  COMPUTES ITEM INTERMEDIATE REPAIR HOURS PER MONTH,                   *
C*  ERHBI(I,NS) AT BASE NS AND ERHD(I) AT THE DEPOT.                     *
C*************************************************************************
C
      COMMON /B/ B
      INTEGER B
      COMMON /BCMH/ BCMH(999)
      COMMON /BMF/ BMF
      COMMON /BMH/ BMH(999)
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /COND/ COND(999)
      COMMON /DMF/ DMF
      COMMON /DMH/ DMH(999)
      COMMON /EBCBI/ EBCBI(999,16)
      COMMON /ERHBI/ ERHBI(999,16)
      COMMON /ERHD/ ERHD(999)
      COMMON /ERTBI/ ERTBI(999,16)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NHB/ NHB(16)
      COMMON /NHI/ NHI(999)
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /NS/ NS
      COMMON /RTS/ RTS(999)
      COMMON /TNB/ TNB(16)
      COMMON /XFPR/ XFPR
      REAL NHNRT
      REAL NHRT
C
C
      DO 260 IXXX1=1,MXI
        I=INO(IXXX1)
        NHRT=0.
        NHNRT=0.
        IF(.NOT.(NHI(I).NE.0)) GO TO 210
```

```
            NHRT=RTS(NHI(I))
            NHNRT=NRTS(NHI(I))
  210     CONTINUE
          XF=XFPR*FPR(I)
          DO 250 NS=1,MXNS
            SFL1=0.
            SFL2=0.
            ERHBI(I,NS)=0.
            EBCBI(I,NS)=0.
            ERTBI(I,NS)=0.
            IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 230
C
C.....INCLUDE REPAIRS FROM SATELLITE BASES
              TEMO1=0.
              DO 220 B=1,MXNS
                IF(.NOT.(NHB(B).EQ.NS)) GO TO 220
                TEMO1=TEMO1+FAIL(I,B)*NBC(B)
  220         CONTINUE
              SFL1=TEMO1
              SFL2=SFL1*(FLOAT(LRU(I))+NHRT)*U(1.-COND(I))*RTS(I)*BMH(I)*
     +          BMF
              SFL1=SFL1*(FLOAT(LRU(I))+NHRT)*((RTS(I)+NRTS(I)+XF+U(XF)*
     +          COND(I))*BCMH(I))*BMF
  230       CONTINUE
            IF(.NOT.(BTYPE(NS).LT.3)) GO TO 240
              EBCBI(I,NS)=FAIL(I,NS)*(FLOAT(LRU(I))+NHRT)*((1.+XF)*BCMH(I)
     +          )*BMF+SFL1
              ERTBI(I,NS)=FAIL(I,NS)*(FLOAT(LRU(I))+NHRT)*U(1.-COND(I))*
     +          kTS(I)*BMH(I)*BMF+SFL2
              ERHBI(I,NS)=EBCBI(I,NS)+ERTBI(I,NS)
  240       CONTINUE
            ERHD(I)=ERHD(I)+FAIL(I,NS)*TNB(NS)*((FLOAT(LRU(I))+NHRT)*
     +        NRTS(I)+NHNRT*(1.-COND(I)))*DMH(I)*DMF
  250     CONTINUE
  260   CONTINUE
C
        RETURN
        END
```

```
      SUBROUTINE ZERHSE
C                                                              800827 111214832
C*****************************************************************************
C*  SSS MOD SLR - 21 MAY 80                                                  *
C*  CALCULATES EXPECTED MANHOURS PER MONTH                                   *
C*  THAT SUPPORT EQUIP. TYPE L IS UTILIZED,                                  *
C*  ERHAB(L,NS) AT BASE NS AND ERHAD(L) AT THE DEPOT.                        *
C*****************************************************************************
C
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /BSP/ BSP(16)
      INTEGER BSP
      COMMON /EBCBI/ EBCBI(999,16)
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /ERHD/ ERHD(999)
      COMMON /ERTBI/ ERTBI(999,16)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /L/ L
      COMMON /LT/ LT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXLT/ MXLT
      COMMON /MXNS/ MXNS
      COMMON /NJA/ NJA(999,4)
      COMMON /NRM/ NRM(999)
      COMMON /NS/ NS
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RMI/ RMI(999,16)
      INTEGER RMI
      INTEGER FLAG
      INTEGER FLAG1
      INTEGER FLAG2
      INTEGER FLAG3
      INTEGER SECODE
C
C
      DO 410 IXXX1=1,MXI
        I=INO(IXXX1)
        NXXX1=NRM(I)
        IF(.NOT.(NXXX1.NE.0)) GO TO 400
          DO 280 NS=1,MXNS
            RMI(I,NS)=BSP(NS)+1
```

```
                FLAG1=0
                FLAG2=0
                DO 240 IRMT=1,MXIRMT
                  IF(.NOT.(IRMT.LE.NXXX1)) GO TO 250
                  IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 210
                    FLAG1=IRMT
  210             CONTINUE
                  IF(.NOT.(IRMIN(I,IRMT).EQ.2)) GO TO 220
                    FLAG2=IRMT
  220             CONTINUE
                  IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 230
                    FLAG3=IRMT
  230             CONTINUE
  240           CONTINUE
  250           CONTINUE
                FLAG=FLAG1
                IF(.NOT.(FLAG1.EQ.0)) GO TO 270
                  FLAG=FLAG2
                  RMI(I,NS)=2
                  IF(.NOT.(FLAG2.EQ.0)) GO TO 260
                    FLAG=FLAG3
                    RMI(I,NS)=1
  260             CONTINUE
  270           CONTINUE
  280         CONTINUE
              DO 380 IRMT=1,MXIRMT
                IF(.NOT.(IRMT.LE.NXXX1)) GO TO 390
                NXXX2=NJA(I,IRMT)
                IF(.NOT.(NXXX2.NE.0)) GO TO 370
                  DO 350 LT=1,MXLT
                    IF(.NOT.(LT.LE.NXXX2)) GO TO 360
                    L=A(I,IRMT,LT)
                    IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 300
                      SECODE=INT(QSA(I,IRMT,LT)/100.)
                      IF(.NOT.(SECODE.GT.0.AND.SECODE.LT.3)) GO TO 290
                        ERHAD(L)=ERHAD(L)+ERHD(I)
  290                 CONTINUE
  300               CONTINUE
                    DO 340 NS=1,MXNS
                      IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 330
                        SECODE=INT(QSA(I,IRMT,LT)/100.)
                        IF(.NOT.(SECODE.GT.1)) GO TO 310
                          ERHAB(L,NS)=ERHAB(L,NS)+EBCBI(I,NS)
  310                   CONTINUE
                        IF(.NOT.(SECODE.GT.0.AND.SECODE.LT.3)) GO TO 320
                          ERHAB(L,NS)=ERHAB(L,NS)+ERTBI(I,NS)
  320                   CONTINUE
```

```
  330              CONTINUE
  340            CONTINUE
  350          CONTINUE
  360          CONTINUE
  370        CONTINUE
  380      CONTINUE
  390      CONTINUE
  400    CONTINUE
  410 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZISET
C                                                                  800827 111248356
C*****************************************************************************
C*  SSS MOD SLR 21 MAY 80                                                    *
C*  CALCULATES THE MAXIMUM NUMBER OF SUPPORT                                 *
C*  EQUIP. OF TYPE L REQUIRED:ISET(L,NS) AT                                  *
C*  BASE NS AND ISETD(L) AT THE DEPOT                                        *
C*****************************************************************************
C
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /ERHBI/ ERHBI(999,16)
      COMMON /ERHD/ ERHD(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /ISETD/ ISETD(250)
      REAL ISETD
      COMMON /L/ L
      COMMON /LT/ LT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXLT/ MXLT
      COMMON /MXNS/ MXNS
      COMMON /NJA/ NJA(999,4)
      COMMON /NRM/ NRM(999)
      COMMON /NS/ NS
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RMI/ RMI(999,16)
      INTEGER RMI
C
C
      DO 360 IXXX1=1,MXI
        I=INO(IXXX1)
        NXXX1=NRM(I)
        IF(.NOT.(NXXX1.NE.0)) GO TO 350
          DO 270 NS=1,MXNS
            IF(.NOT.(ERHBI(I,NS).GT.0.000001)) GO TO 270
            DO 250 IRMT=1,MXIRMT
              IF(.NOT.(IRMT.LE.NXXX1)) GO TO 260
              IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 240
                NXXX2=NJA(I,IRMT)
                IF(.NOT.(NXXX2.NE.0)) GO TO 230
                  DO 210 LT=1,MXLT
```

```
                    IF(.NOT.(LT.LE.NXXX2)) GO TO 220
                    L=A(I,IRMT,LT)
                    TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
                    ISET(L,NS)=AMAX1(ISET(L,NS),TQSA)
  210             CONTINUE
  220             CONTINUE
  230           CONTINUE
  240         CONTINUE
  250       CONTINUE
  260       CONTINUE
  270     CONTINUE
          IF(.NOT.(ERHD(I).GT.0.000001)) GO TO 340
            DO 320 IRMT=1,MXIRMT
              IF(.NOT.(IRMT.LE.NXXX1)) GO TO 330
              IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 310
                NXXX2=NJA(I,IRMT)
                IF(.NOT.(NXXX2.GT.0)) GO TO 300
                  DO 280 LT=1,MXLT
                    IF(.NOT.(LT.LE.NXXX2)) GO TO 290
                    L=A(I,IRMT,LT)
                    TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
                    ISETD(L)=AMAX1(ISETD(L),TQSA)
  280             CONTINUE
  290             CONTINUE
  300           CONTINUE
  310         CONTINUE
  320       CONTINUE
  330       CONTINUE
  340     CONTINUE
  350   CONTINUE
  360 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZUSE
C                                                                  800827 111316209
C*****************************************************************************
C*  COMPUTES UTILIZATION TO BE USED FOR                                      *
C*  SENSITIVITY BMF &DMF FACTORS                                             *
C*****************************************************************************
C
      COMMON /BAA/ BAA
      COMMON /DAA/ DAA
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /L/ L
      COMMON /MUSE/ MUSE
      REAL MUSE
      COMMON /MXL/ MXL
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SETYPE/ SETYPE(250)
      INTEGER SETYPE
      COMMON /USE/ USE(250,16)
      COMMON /USED/ USED(250)
      REAL MUSEB
      REAL MUSED
C
C
      MUSEB=MUSE*BAA
      MUSED=MUSE*DAA
      DO 250 IXXX1=1,MXL
        L=SEINO(IXXX1)
        IF(.NOT.(SETYPE(L).GE.2)) GO TO 240
          DO 220 NS=1,MXNS
            IF(.NOT.(ERHAB(L,NS).GT..000001.AND.ERHAB(L,NS).LT.
     +        MUSEB)) GO TO 210
              USE(L,NS)=0.
  210       CONTINUE
  220     CONTINUE
          IF(.NOT.(ERHAD(L).GT..000001.AND.ERHAD(L).LT.MUSED)) GO TO 230
            USED(L)=0.
  230     CONTINUE
  240   CONTINUE
  250 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZTYPE
C                                                              800827 111323268
C*****************************************************************************
C*  COMPUTES SAT AND CIMF FACTORS ACCORDING                                  *
C*  TO BTYPE FOR SENSITIVITY CALCULATIONS                                    *
C*****************************************************************************
C
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CIMF/ CIMF(16)
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /SAT/ SAT(16)
C
C
      DO 230 NS=1,MXNS
        SAT(NS)=0.
        CIMF(NS)=0.
        IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 210
          SAT(NS)=1.
  210   CONTINUE
        IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 220
          CIMF(NS)=1.
  220   CONTINUE
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZTFR
C                                                                  800827 111333120
C*****************************************************************************
C*  COMPUTES ITEM FAILURE RATE                                                *
C*****************************************************************************
C
      COMMON /APFH/ APFH(10,3)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPLT/ FPLT(999)
      COMMON /FPM/ FPM(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LO/ LO(16)
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /PIUP/ PIUP
      COMMON /TFAC/ TFAC(10)
      COMMON /TFR/ TFR(999)
      COMMON /TNB/ TNB(16)
C
C
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=0.
        DO 210 NS=1,MXNS
          TEM01=TEM01+TNB(NS)*FAIL(I,NS)
  210   CONTINUE
        FPM(I)=TEM01
        FPLT(I)=12.*PIUP*FPM(I)
        TEM03=0.
        DO 230 NS=1,MXNS
          TEM02=0.
          DO 220 NP=1,MXNP
            TEM02=TEM02+NITEM(I,NP)*NPLT(NP,NS)*APFH(NP,LO(NS))*TFAC(NP)
  220     CONTINUE
          TEM03=TEM03+TNB(NS)*TEM02
  230   CONTINUE
        TOO=TEM03
        TFR(I)=FPM(I)*1000000./TOO
  240 CONTINUE
```

```
C
      RETURN
      END
```

```
      SUBROUTINE ZSECI
C
C*****************************************************************************
C*  COMPUTES SECI(I),THE PRO RATA PART OF SEC                                *
C*  SSS MOD JRC 2 JUN 80                                                     *
C*****************************************************************************
C
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /BAA/ BAA
      COMMON /COND/ COND(999)
      COMMON /CSE/ CSE(250)
      COMMON /DAA/ DAA
      COMMON /ERHA/ ERHA(250)
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /ERHBI/ ERHBI(999,16)
      COMMON /ERHD/ ERHD(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /ISETD/ ISETD(250)
      REAL ISETD
      COMMON /L/ L
      COMMON /LT/ LT
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXL/ MXL
      COMMON /MXLT/ MXLT
      COMMON /MXNS/ MXNS
      COMMON /NJA/ NJA(999,4)
      COMMON /NRM/ NRM(999)
      COMMON /NS/ NS
      COMMON /NSEB/ NSEB(250,16)
      REAL NSEB
      COMMON /NSED/ NSED(250)
      REAL NSED
      COMMON /PBDV/ PBDV(250)
      COMMON /PDDV/ PDDV(250)
      COMMON /PIUP/ PIUP
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RMI/ RMI(999,16)
```

```
      INTEGER RMI
      COMMON /SECB/ SECB(250)
      COMMON /SECD/ SECD(250)
      COMMON /SECI/ SECI(999)
      COMMON /SEDEV/ SEDEV(250)
      COMMON /SEDV/ SEDV(250)
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SETYPE/ SETYPE(250)
      INTEGER SETYPE
      COMMON /TERHB/ TERHB(250)
      COMMON /TERHD/ TERHD(250)
      COMMON /TNB/ TNB(16)
      COMMON /TUCTDC/ TUCTDC
      COMMON /UCTDC/ UCTDC(999)
      COMMON /UCTDEV/ UCTDEV(999)
      REAL NXXX1
      REAL NXXX2
      DIMENSION T2(999,250)
      DIMENSION T4(999,250)
C
C
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        UCTDC(I)=UCTDEV(I)*U(1.-COND(I))
        TUCTDC=TUCTDC+UCTDC(I)
  210 CONTINUE
      DO 270 IXXX1=1,MXL
        L=SEINO(IXXX1)
        DO 240 NS=1,MXNS
          IF(.NOT.(SETYPE(L).EQ.1)) GO TO 220
            NSEB(L,NS)=ERHAB(L,NS)/BAA*ISET(L,NS)
  220     CONTINUE
          IF(.NOT.(SETYPE(L).GE.2)) GO TO 230
            NSEB(L,NS)=AINT(ERHAB(L,NS)/BAA+.9999)*ISET(L,NS)
  230     CONTINUE
  240   CONTINUE
        IF(.NOT.(SETYPE(L).EQ.1)) GO TO 250
          NSED(L)=ERHAD(L)/DAA*ISETD(L)
  250   CONTINUE
        IF(.NOT.(SETYPE(L).GE.2)) GO TO 260
          NSED(L)=AINT(ERHAD(L)/DAA+.9999)*ISETD(L)
  260   CONTINUE
  270 CONTINUE
      DO 430 IXXX1=1,MXI
        I=INO(IXXX1)
        DO 280 IXXX2=1,MXL
```

```
        L=SEINO(IXXX2)
        T2(I,L)=0.
        T4(I,L)=0.
280   CONTINUE
      NXXX1=NRM(I)
      IF(.NOT.(NXXX1.GT.0)) GO TO 360
        DO 350 NS=1,MXNS
          DO 330 IRMT=1,MXIRMT
            IF(.NOT.(IRMT.LE.NXXX1)) GO TO 340
            IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 320
              NXXX2=NJA(I,IRMT)
              IF(.NOT.(NXXX2.GT.0)) GO TO 31(
                DO 290 LT=1,MXLT
                  IF(.NOT.(LT.LE.NXXX2)) GO TO 300
                  L=A(I,IRMT,LT)
                  T1=ERHBI(I,NS)*TNB(NS)*(QSA(I,IRMT,LT)-AINT(QSA(I,
     +              IRMT,LT)/100.)*100.)
                  TERHB(L)=TERHB(L)+T1
                  T2(I,L)=T2(I,L)+T1
290             CONTINUE
300             CONTINUE
310           CONTINUE
320         CONTINUE
330       CONTINUE
340       CONTINUE
350     CONTINUE
360   CONTINUE
      DO 410 IRMT=1,MXIRMT
        IF(.NOT.(IRMT.LE.NXXX1)) GO TO 420
        IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 400
          NXXX2=NJA(I,IRMT)
          IF(.NOT.(NXXX2.GT.0)) GO TO 390
            DO 370 LT=1,MXLT
              IF(.NOT.(LT.LE.NXXX2)) GO TO 380
              L=A(I,IRMT,LT)
              T3=ERHD(I)*(QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*
     +          100.)
              TERHD(L)=TERHD(L)+T3
              T4(I,L)=T4(I,L)+T3
370         CONTINUE
380         CONTINUE
390       CONTINUE
400     CONTINUE
410   CONTINUE
420   CONTINUE
430 CONTINUE
    DO 470 IXXX1=1,MXL
```

```
          L=SEINO(IXXX1)
          SECD(L)=NSED(L)*CSE(L)*(1.+PIUP*MSE(L))
          TEMO1=0.
          DO 440 NS=1,MXNS
            TEMO1=TEMO1+NSEB(L,NS)*TNB(NS)
  440     CONTINUE
          SECB(L)=TEMO1*CSE(L)*(1.+PIUP*MSE(L))
          PBDV(L)=0.
          PDDV(L)=0.
          TEMO2=0.
          DO 450 NS=1,MXNS
            TEMO2=TEMO2+ERHAB(L,NS)
  450     CONTINUE
          ERHA(L)=TEMO2+ERHAD(L)
          SEDV(L)=U(ERHA(L))*SEDEV(L)
          IF(.NOT.(TERHB(L).GT.0.000001.OR.TERHD(L).GT.
     +      0.000001)) GO TO 460
            PBDV(L)=TERHB(L)*SEDV(L)/(TERHB(L)+TERHD(L))
            PDDV(L)=TERHD(L)*SEDV(L)/(TERHB(L)+TERHD(L))
  460     CONTINUE
  470   CONTINUE
        DO 510 IXXX1=1,MXI
          I=INO(IXXX1)
          SECI(I)=UCTDC(I)
          DO 500 IXXX2=1,MXL
            L=SEINO(IXXX2)
            IF(.NOT.(TERHB(L).GT.0.000001)) GO TO 480
              SECI(I)=SECI(I)+(SECB(L)+PBDV(L))*T2(I,L)/TERHB(L)
  480       CONTINUE
            IF(.NOT.(TERHD(L).GT.0.000001)) GO TO 490
              SECI(I)=SECI(I)+(SECD(L)+PDDV(L))*T4(I,L)/TERHD(L)
  490       CONTINUE
  500     CONTINUE
  510   CONTINUE
C
        RETURN
        END
```

```
      SUBROUTINE ZPMEQ
C                                                                  800827 111440789
C*****************************************************************************
C*  COMPUTES PRIME MISSION EQUIPMENT QUANTITIES                                *
C*  FOR EACH LRU ITEM                                                          *
C*  SSS MOD SLR - 15 MAY 80                                                    *
C*****************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /PMEQ/ PMEQ(999)
      COMMON /TNB/ TNB(16)
C
C
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM02=0.
        DO 220 NS=1,MXNS
          TEM01=0.
          DO 210 NP=1,MXNP
            TEM01=TEM01+NPLT(NP,NS)*NITEM(I,NP)
  210     CONTINUE
          TEM02=TEM02+TEM01*TNB(NS)
  220   CONTINUE
        PMEQ(I)=TEM02*FLOAT(LRU(I))
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZTISQ
C                                                                  800827 111445592
C*****************************************************************************
C*  COMPUTES TOTAL INVESTMENT SPARES QUANTITY                                *
C*  FOR AN ITEM OF TYPE I                                                    *
C*  SSS MOD SLR - 15 MAY 80                                                  *
C*****************************************************************************
C
      COMMON /DS/ DS(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NFB/ NFB(999,16)
      REAL NFB
      COMMON /NFD/ NFD(999)
      REAL NFD
      COMMON /NS/ NS
      COMMON /TISQ/ TISQ(999)
      COMMON /TNB/ TNB(16)
C
C
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        TISQ(I)=0.
        DS(I)=F(NFD(I))
        DO 210 NS=1,MXNS
          BBS=F(NFB(I,NS))
          TISQ(I)=TISQ(I)+(TNB(NS)*BBS)
  210   CONTINUE
        TISQ(I)=TISQ(I)+DS(I)
  220 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZYRSQ
C                                                                  800827 111451867
C*****************************************************************************
C*  COMPUTES YEARLY REPLACEMENT SPARES QUANTITY                                *
C*  DUE TO AN INDIVIDUAL ITEM TYPE I                                          *
C*  SSS MOD SLR - 15 MAY 80                                                   *
C*****************************************************************************
C
      COMMON /COND/ COND(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NHI/ NHI(999)
      COMMON /NS/ NS
      COMMON /TNB/ TNB(16)
      COMMON /YRSQ/ YRSQ(999)
C
C
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        CD=0.
        IF(.NOT.(NHI(I).GT.0)) GO TO 210
          CD=COND(NHI(I))
  210   CONTINUE
        TEM01=0.
        DO 220 NS=1,MXNS
          TEM01=TEM01+FAIL(I,NS)*TNB(NS)
  220   CONTINUE
        YRSQ(I)=12.*TEM01*(1.-CD)
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZTOTPQ
C                                                                  800827 111502753
C*****************************************************************************
C*  COMPUTES THE TOTAL QUANTITIES OF                                         *
C*  EACH ITEM TO BE PROCURED                                                 *
C*  SSS MOD SLR - 15 MAY 80                                                  *
C*****************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /PMEQ/ PMEQ(999)
      COMMON /TISQ/ TISQ(999)
      COMMON /TOTPQ/ TOTPQ(999)
      COMMON /YRSQ/ YRSQ(999)
C
C
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TOTPQ(I)=PMEQ(I)+TISQ(I)+NRUC*YRSQ(I)
  210 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZLC
C                                                                    800827 111506859
C*****************************************************************************
C*  LEARNING CURVE EFFECTS FOR ALL ITEMS OF TYPE I                             *
C*  SSS MOD SLR - 15 MAY 80                                                    *
C*****************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LC/ LC(999)
      REAL LC
      COMMON /MXI/ MXI
C
C
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        LC(I)=XLEARN(I)
  210 CONTINUE
C
      RETURN
      END
```

```
      FUNCTION U(X)
C
C                                                          800827 111510589
C
      U=0.
      IF(.NOT.(X.GT..000001)) GO TO 210
        U=1.
  210 CONTINUE
C
      RETURN
      END
```

```
      FUNCTION F(X)
C                                                          800827 111515246
      COMMON /BF/ BF
C
C
      F=0.
      IF(.NOT.(X.GT..000001)) GO TO 210
        F=X+BF*SQRT(X)
  210 CONTINUE
C
      RETURN
      END
```

```
      FUNCTION XLEARN(I)
C                                                          800827 111520472
C*************************************************************************
C*  LEARNING EFFECTS IN EQUATIONS                                        *
C*  SSS MOD SLR - 20 MAY 80                                              *
C*************************************************************************
C
      COMMON /LFAC/ LFAC(999)
      REAL LFAC
      COMMON /TOTPQ/ TOTPQ(999)
      COMMON /XITEMQ/ XITEMQ(999)
      REAL N
C
C
      XLEARN=1.
      BI=ALOG10(LFAC(I))/ALOG10(2.)
      N=TOTPQ(I)+XITEMQ(I)
      IF(.NOT.(N.GT.0.000001)) GO TO 210
        XLEARN=1./N*(1./(BI+1.)*(N**(BI+1.)-1.)+.5*(N**BI+1.)+BI/12.*(N*
     +    *(BI-1.)-1.))
  210 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE COST1
C                                                                  800827 111526680
C*****************************************************************************
C*  COMPUTES PRODUCTION COST ELEMENT-PRODC                                   *
C*  SSS MOD SLR - 20 MAY 80                                                  *
C*****************************************************************************
C
      COMMON /HDWRIT/ HDWRIT(999,10)
      COMMON /HDWRT/ HDWRT(10)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /INTNR/ INTNR(10)
      REAL INTNR
      COMMON /INTR/ INTR(10)
      REAL INTR
      COMMON /LC/ LC(999)
      REAL LC
      COMMON /LRU/ LRU(999)
      COMMON /LUP/ LUP(999)
      REAL LUP
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /PRODC/ PRODC
      COMMON /TERMC/ TERMC(10)
      COMMON /TERMH/ TERMH
      COMMON /TERMI/ TERMI
      COMMON /TNB/ TNB(16)
      COMMON /TOTT/ TOTT(10)
      COMMON /UP/ UP(999)
      COMMON /XUC/ XUC
C
C
      DO 240 NP=1,MXNP
        HDWRT(NP)=0.
        DO 220 IXXX2=1,MXI
          I=INO(IXXX2)
          LUP(I)=UP(I)*LC(I)
          HDWRIT(I,NP)=NITEM(I,NP)*LUP(I)*XUC
          IF(.NOT.(LRU(I).EQ.1)) GO TO 210
            HDWRT(NP)=HDWRT(NP)+HDWRIT(I,NP)
```

```
  210     CONTINUE
  220   CONTINUE
        TEMO1=0.
        DO 230 NS=1,MXNS
          TEMO1=TEMO1+TNB(NS)*NPLT(NP,NS)
  230   CONTINUE
        TOTT(NP)=TEMO1
        TERMC(NP)=(INTNR(NP)/TOTT(NP))+INTR(NP)+HDWRT(NP)
        TERMH=TERMH+(TOTT(NP)*HDWRT(NP))
        TERMI=TERMI+(TOTT(NP)*INTR(NP))+INTNR(NP)
  240 CONTINUE
      PRODC=TERMH+TERMI
C
      RETURN
      END
```

```
      SUBROUTINE COST2
C                                                              800827 111544007
C*************************************************************************
C*  COMPUTES MODIFICATION/INSTALLATION                                   *
C*  COST ELEMENT-MIC                                                     *
C*************************************************************************
C
      COMMON /AKIT/ AKIT(4,10)
      COMMON /FR/ FR(3,10)
      COMMON /IA/ IA
      COMMON /IMICA/ IMICA(10)
      REAL IMICA
      COMMON /M/ M
      COMMON /MIC/ MIC
      REAL MIC
      COMMON /MIFIX/ MIFIX(3,10)
      REAL MIFIX
      COMMON /MILR/ MILR(3)
      REAL MILR
      COMMON /MIMH/ MIMH(4,3,10)
      REAL MIMH
      COMMON /MXM/ MXM
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NIA/ NIA
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NRMI/ NRMI(10)
      REAL NRMI
      COMMON /NS/ NS
      COMMON /PDIV/ PDIV(10)
      COMMON /RMICA/ RMICA(10)
      COMMON /TNB/ TNB(16)
      COMMON /XMIL/ XMIL
      REAL IMIC
C
C
C
C.....FIRST COMPUTE NON-RECURRING MOD/INSTALL COST
      IMIC=0.
      RMIC=0.
      DO 240 NP=1,MXNP
        IMICA(NP)=PDIV(NP)*NRMI(NP)
        IMIC=IMIC+IMICA(NP)
C
C.......NEXT COMPUTE RECURRING MOD/INSTALL COST
```

```
      TEM02=0.
      DO 220 M=1,MXM
        TEM01=0.
        DO 210 IA=1,NIA
          TEM01=TEM01+MIMH(IA,M,NP)*XMIL*MILR(M)+AKIT(IA,NP)
210     CONTINUE
        TEM02=TEM02+FR(M,NP)*((MIFIX(M,NP)*1000.)+TEM01)
220   CONTINUE
      RMICA(NP)=TEM02
      TEM03=0.
      DO 230 NS=1,MXNS
        TEM03=TEM03+TNB(NS)*NPLT(NP,NS)*RMICA(NP)
230   CONTINUE
      RMIC=RMIC+TEM03
240 CONTINUE
C
C.....TOTAL MOD/INSTALL COST IS THEN:
      MIC=IMIC+RMIC
C
      RETURN
      END
```

```
      SUBROUTINE COST3
C                                                          800827 111606484
C*************************************************************************
C*  COMPUTES OPERATIONS COST ELEMENT-OC                                  *
C*************************************************************************
C
      COMMON /AFC/ AFC
      COMMON /AMPM/ AMPM(10,3)
      COMMON /APFH/ APFH(10,3)
      COMMON /BAFC/ BAFC(6)
      COMMON /BOLC/ BOLC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CFG/ CFG(3)
      COMMON /DRAG/ DRAG(10)
      COMMON /FGH/ FGH(10)
      COMMON /K/ K(10)
      REAL K
      COMMON /LO/ LO(16)
      COMMON /MMPD/ MMPD(10,3)
      REAL MMPD
      COMMON /MMPM/ MMPM(10)
      REAL MMPM
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NAE/ NAE(10)
      REAL NAE
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /OC/ OC
      COMMON /OLC/ OLC
      COMMON /OLCP/ OLCP
      COMMON /OLCT/ OLCT
      COMMON /PIUP/ PIUP
      COMMON /PMLR/ PMLR
      COMMON /THRS/ THRS(10)
      COMMON /TNB/ TNB(16)
      COMMON /TNLR/ TNLR
C
C
C
C.....FIRST COMPUTE OPERATIONAL LABOR COST (OLC)
      DO 230 NS=1,MXNS
```

```
        TEM01=0.
        DO 210 NP=1,MXNP
          TEM01=TEM01+NPLT(NP,NS)*TNB(NS)*MMPD(NP,LO(NS))
  210   CONTINUE
        DS1=TEM01*365.*PIUP*TNLR/60.
        TEM02=0.
        DO 220 NP=1,MXNP
          TEM02=TEM02+NPLT(NP,NS)*TNB(NS)*MMPM(NP)*AMPM(NP,LO(NS))
  220   CONTINUE
        DS2=TEM02*12.*PIUP*PMLR/60.
        OLCT=OLCT+DS1
        OLCP=OLCP+DS2
        BOLC(BTYPE(NS))=BOLC(BTYPE(NS))+DS1+DS2
        IB=3+BPLAT(NS)
        BOLC(IB)=BOLC(IB)+DS1+DS2
  230 CONTINUE
      OLC=OLCT+OLCP
C
C.....NEXT COMPUTE ADDED FUEL COST (AFC)
      DO 250 NS=1,MXNS
        TEM03=0.
        DO 240 NP=1,MXNP
          IF(.NOT.(K(NP).GT.0.0001.AND.THRS(NP).GT.0.0001)) GO TO 240
          TEM03=TEM03+NPLT(NP,NS)*TNB(NS)*APFH(NP,LO(NS))*FGH(NP)*
     +      CFG(LO(NS))*NAE(NP)*DRAG(NP)/(K(NP)*THRS(NP))
  240   CONTINUE
        DS3=TEM03*12.*PIUP
        AFC=AFC+DS3
        BAFC(BTYPE(NS))=BAFC(BTYPE(NS))+DS3
        IB=3+BPLAT(NS)
        BAFC(IB)=BAFC(IB)+DS3
  250 CONTINUE
C
C.....TOTAL OPERATIONS COST (OC)
      OC=OLC+AFC
C
      RETURN
      END
```

```
      SUBROUTINE COST4
C                                                                  800827 111646289
C*****************************************************************************
C*  COMPUTES INVESTMENT SPARES COST ELEMENT-ISC                                *
C*  SSS MOD SLR - 20 MAY 80                                                    *
C*****************************************************************************
C
      COMMON /BISC/ BISC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BS/ BS(999)
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /DS/ DS(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /ISC/ ISC
      REAL ISC
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /ISCB/ ISCB
      REAL ISCB
      COMMON /ISCD/ ISCD
      REAL ISCD
      COMMON /LC/ LC(999)
      REAL LC
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NFB/ NFB(999,16)
      REAL NFB
      COMMON /NFD/ NFD(999)
      REAL NFD
      COMMON /NS/ NS
      COMMON /TISQ/ TISQ(999)
      COMMON /TNB/ TNB(16)
      COMMON /UP/ UP(999)
      COMMON /XUC/ XUC
C
C
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        ISCA(I)=TISQ(I)*UP(I)*LC(I)*XUC
        DO 210 NS=1,MXNS
          BBSP=TNB(NS)*F(NFB(I,NS))
          BS(I)=BS(I)+BBSP
          BSPC=BBSP*UP(I)*XUC*LC(I)
          BISC(BTYPE(NS))=BISC(BTYPE(NS))+BSPC
```

```
            IB=3+BPLAT(NS)
            BISC(IB)=BISC(IB)+BSPC
            ISCB=ISCB+BSPC
  210     CONTINUE
          DS(I)=F(NFD(I))
          ISCD=ISCD+DS(I)*UP(I)*XUC*LC(I)
  220   CONTINUE
        TEM01=0.
        DO 230 IXXX1=1,MXI
          I=INO(IXXX1)
          TEM01=TEM01+ISCA(I)
  230   CONTINUE
        ISC=TEM01
C
        RETURN
        END
```

```
      SUBROUTINE COST5
C                                                                  800827 111657536
C*****************************************************************************
C*  COMPUTES REPLACEMENT SPARES COST ELEMENT-RSC                              *
C*  SSS MOD SLR - 20 MAY 80                                                  *
C*****************************************************************************
C
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BRSC/ BRSC(6)
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /COND/ COND(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LC/ LC(999)
      REAL LC
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NHI/ NHI(999)
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /NS/ NS
      COMMON /PIUP/ PIUP
      COMMON /RM/ RM(999)
      COMMON /RSC/ RSC
      COMMON /RSCA/ RSCA(999)
      COMMON /TNB/ TNB(16)
      COMMON /UP/ UP(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
C
C
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        RSCA(I)=(NRUC*LC(I)+(PIUP-NRUC))*YRSQ(I)*(COND(I)+(1.-COND(I))*
     +    RM(I))*UP(I)*XUC
        CD=0.
        IF(.NOT.(LRU(I).EQ.0)) GO TO 210
          CD=COND(NHI(I))
  210   CONTINUE
        DO 220 NS=1,MXNS
          TFL=TNB(NS)*FAIL(I,NS)
          BSPC=12.*TFL*(1.-CD)*(COND(I)+(1.-COND(I))*RM(I))*UP(I)*
     +      XUC*(NRUC*LC(I)+(PIUP-NRUC))
```

```
            BRSC(BTYPE(NS))=BRSC(BTYPE(NS))+BSPC
            IB=3+BPLAT(NS)
            BRSC(IB)=BRSC(IB)+BSPC
  220     CONTINUE
          RSC=RSC+RSCA(I)
  230   CONTINUE
C
        RETURN
        END
```

```
      SUBROUTINE COST6
C                                                                  800827 111714868
C*****************************************************************************
C*  COMPUTES ON-EQUIPMENT MAINTENANCE                                        *
C*  COST ELEMENT-ONMC                                                        *
C*****************************************************************************
C
      COMMON /APFH/ APFH(10,3)
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BONMC/ BONMC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IPCF/ IPCF(999)
      REAL IPCF
      COMMON /KFAC/ KFAC(4)
      REAL KFAC
      COMMON /LE/ LE(10)
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /ONMC/ ONMC
      COMMON /ONMCA/ ONMCA(999)
      COMMON /PIUP/ PIUP
      COMMON /RIP/ RIP(999)
      COMMON /RMH/ RMH(999)
      COMMON /TFAC/ TFAC(10)
      COMMON /TNB/ TNB(16)
      COMMON /XFPR/ XFPR
      COMMON /XFR/ XFR
C
```

```
C
      DO 250 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ.1)) GO TO 250
        DO 240 NS=1,MXNS
          TFL=TNB(NS)*FAIL(I,NS)
          DS1=12.*PIUP*TFL*(1.+XFPR*FPR(I))*RMH(I)*BMF*BLR
          IF(.NOT.(RIP(I).LT..999)) GO TO 210
            DS2=12.*PIUP*TFL*RIP(I)*IPCF(I)*BMF/(1.-RIP(I))
  210     CONTINUE
C
C.....IF RIP(I)=1 COMPUTE NO. OF NON-REMOVED FAILURES
          IF(.NOT.(RIP(I).GE..999)) GO TO 230
            TEM01=0.
            DO 220 NP=1,MXNP
              IF(.NOT.(NITEM(I,NP).GT..001)) GO TO 220
              TEM01=TEM01+NITEM(I,NP)*TFAC(NP)*KFAC(LE(NP))/MTBMI(I,
     +          LE(NP))*NPLT(NP,NS)*APFH(NP,LO(NS))
  220       CONTINUE
            TFL=XFR*TEM01*TNB(NS)
            DS2=12.*PIUP*TFL*IPCF(I)*BMF
  230     CONTINUE
          ONMCA(I)=ONMCA(I)+DS1+DS2
          BONMC(BTYPE(NS))=BONMC(BTYPE(NS))+DS1+DS2
          IB=3+BPLAT(NS)
          BONMC(IB)=BONMC(IB)+DS1+DS2
  240   CONTINUE
        ONMC=ONMC+ONMCA(I)
  250 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE COST7
C                                                                    800827 151732926
C*********************************************************************************
C*  COMPUTES OFF-EQUIPMENT MAINTENANCE                                           *
C*  COST ELEMENT-OFMC                                                            *
C*********************************************************************************
C
      COMMON /BCMH/ BCMH(999)
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BMH/ BMH(999)
      COMMON /BOFMC/ BOFMC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /COND/ COND(999)
      COMMON /CPPC/ CPPC
      COMMON /CPPD/ CPPD(3)
      COMMON /DLR/ DLR
      COMMON /DMF/ DMF
      COMMON /DMH/ DMH(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /MRF/ MRF
      REAL MRF
      COMMON /MRO/ MRO
      REAL MRO
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NHB/ NHB(16)
      COMMON /NHI/ NHI(999)
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /NS/ NS
      COMMON /OFMC/ OFMC
      COMMON /OFMCA/ OFMCA(999)
      COMMON /OFMCB/ OFMCB
      COMMON /OFMCD/ OFMCD
      COMMON /PIUP/ PIUP
      COMMON /RIP/ RIP(999)
      COMMON /RTS/ RTS(999)
      COMMON /SR/ SR
```

```
      COMMON /TCFB/ TCFB
      COMMON /TCFD/ TCFD
      COMMON /TNB/ TNB(16)
      COMMON /TR/ TR
      COMMON /WT/ WT(999)
      COMMON /XFPR/ XFPR
      REAL NHNRT
      REAL NHRT
C
C
      DO 260 IXXX1=1,MXI
        I=INO(IXXX1)
        NHRT=0.
        NHNRT=0.
        IF(.NOT.(LRU(I).EQ.0)) GO TO 210
          NHRT=RTS(NHI(I))
          NHNRT=NRTS(NHI(I))
  210   CONTINUE
        XF=XFPR*FPR(I)
        DO 250 NS=1,MXNS
          SATLRU=0.
          IF(.NOT.(BTYPE(NS).EQ.3.AND.LRU(I).EQ.1)) GO TO 220
            SATLRU=1.
  220     CONTINUE
          ACFB=(FLOAT(LRU(I))+NHRT)*((1.+XF)*BCMH(I)+RTS(I)*BMH(I))*BMF*
     +      BLR+SATLRU*(1.+XF)*2.*CPPC*WT(I)
          T1=1.
          IF(.NOT.(RIP(I).NE.1.0)) GO TO 230
            T1=RIP(I)/(1.-RIP(I))
  230     CONTINUE
          ACFB=ACFB+(T1*MRO+MRF+SR+TR)*BLR
          ACFD=(FLOAT(LRU(I))+NHRT)*(NRTS(I)*DMH(I)*DMF*DLR+(2.*NRTS(I)+
     +      COND(I))*CPPD(LO(NS))*WT(I))+NHNRT*(1.-COND(I))*DMH(I)*DMF*
     +      DLR
          TCFB=12.*PIUP*TNB(NS)*FAIL(I,NS)*ACFB
          TCFD=12.*PIUP*TNB(NS)*FAIL(I,NS)*ACFD
          OFMCA(I)=OFMCA(I)+TCFB+TCFD
          OFMCB=OFMCB+TCFB
          OFMCD=OFMCD+TCFD
          IB=BTYPE(NS)
          IB1=3+BPLAT(NS)
          IF(.NOT.(IB.EQ.3)) GO TO 240
            IB=2
            IB1=3+BPLAT(NHB(NS))
  240     CONTINUE
          BOFMC(IB)=BOFMC(IB)+TCFB
          BOFMC(IB1)=BOFMC(IB1)+TCFB
```

```
  250   CONTINUE
  260 CONTINUE
      OFMC=OFMCB+OFMCD
C
      RETURN
      END
```

```
      SUBROUTINE COST8
C                                                              800827 111810711
C*****************************************************************************
C*  COMPUTES SUPPORT EQUIPMENT COST ELEMENT-SEC                              *
C*  SSS MOD SLR - 27 MAY 80                                                  *
C*****************************************************************************
C
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BSECC/ BSECC(6)
      COMMON /BSECP/ BSECP(6)
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CSE/ CSE(250)
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /L/ L
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXI/ MXI
      COMMON /MXL/ MXL
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /NSEB/ NSEB(250,16)
      REAL NSEB
      COMMON /NSED/ NSED(250)
      REAL NSED
      COMMON /PIUP/ PIUP
      COMMON /SECBC/ SECBC
      COMMON /SECBP/ SECBP
      COMMON /SECC/ SECC
      COMMON /SECDC/ SECDC
      COMMON /SECDP/ SECDP
      COMMON /SECIC/ SECIC
      COMMON /SECII/ SECII
      COMMON /SECIP/ SECIP
      COMMON /SECP/ SECP
      COMMON /SECR/ SECR
      COMMON /SECRC/ SECRC
      COMMON /SECRP/ SECRP
      COMMON /SEDC/ SEDC
      COMMON /SEDV/ SEDV(250)
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SEPC/ SEPC
      COMMON /SETYPE/ SETYPE(250)
      INTEGER SETYPE
```

```
      COMMON /TNB/ TNB(16)
      COMMON /TSEC/ TSEC
      COMMON /TUCTDC/ TUCTDC
      INTEGER DUMM
C
C
      DO 220 IXXX1=1,MXL
        L=SEINO(IXXX1)
        TEMO1=0.
        DO 210 NS=1,MXNS
          TEMO1=TEMO1+(NSEB(L,NS)*TNB(NS))
  210   CONTINUE
        SEPC=(TEMO1+NSED(L))*CSE(L)*(1.+PIUP*MSE(L))+SEPC
        SEDC=SEDC+SEDV(L)
  220 CONTINUE
      SEDC=SEDC+TUCTDC
      TSEC=SEPC+SEDC
      DO 350 IXXX1=1,MXL
        L=SEINO(IXXX1)
        DO 230 NS=1,MXNS
          TCSEL=NSEB(L,NS)*TNB(NS)*CSE(L)
          SECII=SECII+TCSEL
          SECR=SECR+TCSEL*PIUP*MSE(L)
  230   CONTINUE
        SECR=SECR+NSED(L)*CSE(L)*PIUP*MSE(L)
        TEMO2=0.
        DO 240 NS=1,MXNS
          TEMO2=TEMO2+NSEB(L,NS)*TNB(NS)
  240   CONTINUE
        SUMM=TEMO2
        IF(.NOT.(SETYPE(L).NE.3)) GO TO 290
          SECDC=SECDC+NSED(L)*CSE(L)*(1.+PIUP*MSE(L))
          SECIC=SECIC+(SUMM+NSED(L))*CSE(L)
          SECRC=SECRC+(SUMM+NSED(L))*CSE(L)*PIUP*MSE(L)
          DO 260 DUM=1,3
            TEMO3=0.
            DO 250 NS=1,MXNS
              IF(.NOT.(BTYPE(NS).EQ.DUM)) GO TO 250
              TEMO3=TEMO3+NSEB(L,NS)*TNB(NS)
  250       CONTINUE
            BSECC(DUM)=BSECC(DUM)+(TEMO3)*CSE(L)*(1.+PIUP*MSE(L))
  260     CONTINUE
          DO 280 DUM=4,6
            DUMM=DUM-3
            TEMO4=0.
            DO 270 NS=1,MXNS
              IF(.NOT.(BPLAT(NS).EQ.DUMM)) GO TO 270
```

```
            TEM04=TEM04+NSEB(L,NS)*TNB(NS)
  270       CONTINUE
            BSECC(DUM)=BSECC(DUM)+(TEM04)*CSE(L)*(1.+PIUP*MSE(L))
  280     CONTINUE
  290   CONTINUE
        IF(.NOT.(SETYPE(L).EQ.3)) GO TO 340
          SECIP=SECIP+(SUMM+NSED(L))*CSE(L)
          SECRP=SECRP+(SUMM+NSED(L))*CSE(L)*PIUP*MSE(L)
          SECDP=SECDP+(NSED(L)*CSE(L)*(1.+PIUP*MSE(L)))
          DO 310 DUM=1,3
            TEM05=0.
            DO 300 NS=1,MXNS
              IF(.NOT.(BTYPE(NS).EQ.DUM)) GO TO 300
              TEM05=TEM05+NSEB(L,NS)*TNB(NS)
  300       CONTINUE
            BSECP(DUM)=BSECP(DUM)+TEM05*CSE(L)*(1.+PIUP*MSE(L))
  310     CONTINUE
          DO 330 DUM=4,5
            DUMM=DUM-3
            TEM06=0.
            DO 320 NS=1,MXNS
              IF(.NOT.(BPLAT(NS).EQ.DUMM)) GO TO 320
              TEM06=TEM06+NSEB(L,NS)*TNB(NS)
  320       CONTINUE
            BSECP(DUM)=BSECP(DUM)+(TEM06)*CSE(L)*(1.+PIUP*MSE(L))
  330     CONTINUE
  340   CONTINUE
  350 CONTINUE
      TEM07=0.
      DO 360 DUM=1,3
        TEM07=TEM07+BSECC(DUM)
  360 CONTINUE
      SECBC=TEM07
      TEM08=0.
      DO 370 DUM=1,3
        TEM08=TEM08+BSECP(DUM)
  370 CONTINUE
      SECBP=TEM08
      SECII=SECII+SEDC
      SECC=SECIC+SECRC
      SECP=SECIP+SECRP
C
      RETURN
      END
```

```
      SUBROUTINE COST9
C                                                                    800827 111900777
C*****************************************************************************
C*  COMPUTES ITEM INVENTORY MANAGEMENT                                       *
C*  COST ELEMENT-IIMC                                                        *
C*****************************************************************************
C
      COMMON /BIIMC/ BIIMC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /COND/ COND(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /I/ I
      COMMON /IIMC/ IIMC
      REAL IIMC
      COMMON /IIMCA/ IIMCA(999)
      REAL IIMCA
      COMMON /IIMCB/ IIMCB
      REAL IIMCB
      COMMON /IIMCD/ IIMCD
      REAL IIMCD
      COMMON /IIMCI/ IIMCI
      REAL IIMCI
      COMMON /IIMCR/ IIMCR
      REAL IIMCR
      COMMON /IMC/ IMC
      REAL IMC
      COMMON /INO/ INO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NFB/ NFB(999,16)
      REAL NFB
      COMMON /NHI/ NHI(999)
      COMMON /NS/ NS
      COMMON /PA/ PA(999)
      COMMON /PIUP/ PIUP
      COMMON /RMC/ RMC
      COMMON /RTS/ RTS(999)
      COMMON /SA/ SA
      COMMON /SAT/ SAT(16)
      COMMON /TNB/ TNB(16)
      REAL IUT
      REAL NHCD
C
```

```
C
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=0.
        DO 210 NS=1,MXNS
          TEM01=TEM01+FAIL(I,NS)
  210   CONTINUE
        IUT=TEM01
        IUT=U(IUT)
        NHCD=0.
        IF(.NOT.(LRU(I).EQ.0)) GO TO 220
          NHCD=COND(NHI(I))
  220   CONTINUE
        CPA=PA(I)*U(1.-COND(I))
        DO 230 NS=1,MXNS
          BIS=AMIN1(F(NFB(I,NS)),1.)*TNB(NS)
          BCIS=(1.-SAT(NS))*U(RTS(I)*NFB(I,NS))*TNB(NS)
          CB=PIUP*(BIS+BCIS*CPA)*SA
          IIMCA(I)=IIMCA(I)+CB
          IIMCB=IIMCB+CB
          BIIMC(BTYPE(NS))=BIIMC(BTYPE(NS))+CB
          IB=3+BPLAT(NS)
          BIIMC(IB)=BIIMC(IB)+CB
          IIMCR=IIMCR+CB
  230   CONTINUE
        CD=IUT*(1.+CPA)*U(1.-NHCD)*(IMC+PIUP*RMC)
        IIMCA(I)=IIMCA(I)+CD
        IIMCD=IIMCD+CD
        IIMCI=IIMCI+IUT*(1.+CPA)*U(1.-NHCD)*IMC
        IIMCR=IIMCR+IUT*(1.+CPA)*U(1.-NHCD)*PIUP*RMC
  240 CONTINUE
      IIMC=IIMCB+IIMCD
C
      RETURN
      END
```

```
      SUBROUTINE COST10
C                                                              800827 111925192
C*************************************************************************
C*  CALCULATES TECH ORDER COST - STDC                                    *
C*  SSS MOD SLR - 28 MAY 80                                              *
C*************************************************************************
C
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /ACPP/ ACPP
      COMMON /BDATA/ BDATA
      INTEGER BDATA
      COMMON /BTDC/ BTDC(16)
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /DATAB/ DATAB(999)
      INTEGER DATAB
      COMMON /DATAD/ DATAD(999)
      INTEGER DATAD
      COMMON /DATAS/ DATAS(250)
      INTEGER DATAS
      COMMON /DDATA/ DDATA
      INTEGER DDATA
      COMMON /EBCBI/ EBCBI(999,16)
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /ERHD/ ERHD(999)
      COMMON /ERTBI/ ERTBI(999,16)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /L/ L
      COMMON /LT/ LT
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXL/ MXL
      COMMON /MXLT/ MXLT
      COMMON /MXNS/ MXNS
      COMMON /NJA/ NJA(999,4)
      COMMON /NRM/ NRM(999)
      COMMON /NS/ NS
      COMMON /NSEB/ NSEB(250,16)
      REAL NSEB
      COMMON /NSED/ NSED(250)
      REAL NSED
      COMMON /OFMC/ OFMC
```

```
      COMMON /OFMCA/ OFMCA(999)
      COMMON /ONMC/ ONMC
      COMMON /ONMCA/ ONMCA(999)
      COMMON /PIUP/ PIUP
      COMMON /PPSE/ PPSE(999,250)
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RCPP/ RCPP
      COMMON /RMI/ RMI(999,16)
      INTEGER RMI
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SETDC/ SETDC(250)
      COMMON /STDC/ STDC
      COMMON /STDCI/ STDCI
      COMMON /STDCR/ STDCR
      COMMON /TDC/ TDC(999)
      COMMON /TNB/ TNB(16)
      COMMON /TNSE/ TNSE(250)
      COMMON /UCPP/ UCPP
      INTEGER SECD1
      DIMENSION SECODE(250)
      DIMENSION SUM(250)
      DIMENSION TERHAB(250)
      DIMENSION TQSA(250)
C
C
      SUM3=0.
      SUM2=0.
      TERM2=0.
      DO 250 IXXX1=1,MXL
        L=SEINO(IXXX1)
        TEM01=0.
        DO 210 NS=1,MXNS
          IF(.NOT.(BTYPE(NS).EQ.1)) GO TO 210
          TEM01=TEM01+TNB(NS)*NSEB(L,NS)
  210   CONTINUE
        T1=TEM01
        TEM02=0.
        DO 220 NS=1,MXNS
          IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 220
          TEM02=TEM02+TNB(NS)*NSEB(L,NS)
  220   CONTINUE
        T2=TEM02
        T7=T1+T2+NSED(L)
        TEM03=0.
        DO 230 NS=1,MXNS
          TEM03=TEM03+NSEB(L,NS)
```

```
  230   CONTINUE
        TNSE(L)=TEM03+NSED(L)
        SUM3=SUM3+U(TNSE(L))*FLOAT(DATAS(L))
        TEM04=0.
        DO 240 NS=1,MXNS
          TEM04=TEM04+TNB(NS)*U(NSEB(L,NS))
  240   CONTINUE
        SETDC(L)=U(T7)*FLOAT(DATAS(L))*(ACPP+RCPP+(PIUP-1.)*UCPP)+RCPP*
     +    TEM04*FLOAT(DATAS(L))
  250 CONTINUE
      DO 260 IXXX1=1,MXI
        I=INO(IXXX1)
        SUM2=SUM2+(FLOAT(DATAD(I))+FLOAT(DATAB(I)))
  260 CONTINUE
      TERM1=(FLOAT(DDATA+BDATA)+SUM2+SUM3)*(ACPP+RCPP+(PIUP-1.)*UCPP)
      DO 290 NS=1,MXNS
        TEM05=0.
        DO 270 IXXX2=1,MXI
          I=INO(IXXX2)
          TEM05=TEM05+FLOAT(DATAB(I))
  270   CONTINUE
        TEM06=0.
        DO 280 IXXX2=1,MXL
          L=SEINO(IXXX2)
          TEM06=TEM06+U(NSEB(L,NS))*FLOAT(DATAS(L))
  280   CONTINUE
        BTDC(NS)=TNB(NS)*(FLOAT(BDATA)+TEM05+TEM06)*RCPP
        TERM2=TERM2+BTDC(NS)
  290 CONTINUE
      STDC=TERM1+TERM2
      STDC1=STDC-(FLOAT(DDATA+BDATA)+SUM2+SUM3)*(PIUP-1.)*UCPP
      STDCR=STDC-STDCI
C
C.....CALCULATE TDC(I)
      DO 460 IXXX1=1,MXI
        I=INO(IXXX1)
        PPTM=(ONMCA(I)+OFMCA(I))/(ONMC+OFMC)
        DO 310 IXXX2=1,MXL
          L=SEINO(IXXX2)
          TEM07=0.
          DO 300 NS=1,MXNS
            TEM07=TEM07+TNB(NS)*ERHAB(L,NS)
  300     CONTINUE
          TERHAB(L)=TEM07
          SECODE(L)=0.
          SUM(L)=0.
          TQSA(L)=0.
```

```
        PPSE(I,L)=0.
310   CONTINUE
      NXXX1=NRM(I)
      IF(.NOT.(NXXX1.GT.0)) GO TO 400
        DO 380 IRMT=1,MXIRMT
          IF(.NOT.(IRMT.LE.NXXX1)) GO TO 390
          NXXX2=NJA(I,IRMT)
          IF(.NOT.(NXXX2.GT.0)) GO TO 370
            DO 350 LT=1,MXLT
              IF(.NOT.(LT.LE.NXXX2)) GO TO 360
              L=A(I,IRMT,LT)
              IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 320
                SECD1=3-INT(QSA(I,IRMT,LT)/100.)
                SECODE(L)=FLOAT(SECD1)
                TQSA(L)=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
320           CONTINUE
              DO 340 NS=1,MXNS
                IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 330
                  TQSA1=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
                  SECD1=(INT(QSA(I,IRMT,LT)/100.)-1)
                  ST1=U(FLOAT(SECD1))*TNB(NS)*EBCBI(I,NS)
                  SECD1=(3-INT(QSA(I,IRMT,LT)/100.))*INT(QSA(I,IRMT,
     +              LT)/100.)
                  ST2=U(FLOAT(SECD1))*TNB(NS)*ERTBI(I,NS)
                  SUM(L)=SUM(L)+U(TQSA1)*(ST1+ST2)
330             CONTINUE
340           CONTINUE
350         CONTINUE
360         CONTINUE
370       CONTINUE
380     CONTINUE
390     CONTINUE
400   CONTINUE
      DO 420 IXXX2=1,MXL
        L=SEINO(IXXX2)
        T8=ERHAD(L)+TERHAB(L)
        IF(.NOT.(T8.GE.0.000001)) GO TO 410
          PPSE(I,L)=(U(TQSA(L))*U(SECODE(L))*ERHD(I)+SUM(L))/T8
410     CONTINUE
420   CONTINUE
      TEM08=0.
      DO 430 IXXX2=1,MXL
        L=SEINO(IXXX2)
        TEM08=TEM08+PPSE(I,L)*FLOAT(DATAS(L))
430   CONTINUE
      TEM10=0.
      DO 450 NS=1,MXNS
```

```
            TEM09=0.
            DO 440 IXXX3=1,MXL
              L=SEINO(IXXX3)
              TEM09=TEM09+PPSE(I,L)*U(NSEB(L,NS))*FLOAT(DATAS(L))
  440       CONTINUE
            TEM10=TEM10+TNB(NS)*(PPTM*FLOAT(BDATA)+FLOAT(DATAB(I))+TEM09)
  450     CONTINUE
          TDC(I)=(PPTM*FLOAT(DDATA+BDATA)+FLOAT(DATAD(I))+FLOAT(DATAB(I))+
     +      TEM08)*(ACPP+RCPP+(PIUP-1.)*UCPP)+RCPP*TEM10
  460   CONTINUE
C
        RETURN
        END
```

```
      SUBROUTINE COST11
C                                                          800827 112028726
C*************************************************************************
C*  CALCULATES MAINTENANCE TRAINING COST - MTRC                          *
C*************************************************************************
C
      COMMON /BMTRC/ BMTRC
      COMMON /COND/ COND(999)
      COMMON /CPD1/ CPD1
      COMMON /CPD2/ CPD2
      COMMON /DMTRC/ DMTRC
      COMMON /ERTBI/ ERTBI(999,16)
      COMMON /HPD1/ HPD1
      INTEGER HPD1
      COMMON /HPD2/ HPD2
      INTEGER HPD2
      COMMON /I/ I
      COMMON /IMTRC/ IMTRC
      REAL IMTRC
      COMMON /INO/ INO(999)
      COMMON /MTRC/ MTRC
      REAL MTRC
      COMMON /MTRCI/ MTRCI(999)
      REAL MTRCI
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /PAL1/ PAL1
      COMMON /PAL2B/ PAL2B
      COMMON /PAL2D/ PAL2D
      COMMON /PIUP/ PIUP
      COMMON /QTYP1/ QTYP1
      INTEGER QTYP1
      COMMON /QTYP2B/ QTYP2B
      INTEGER QTYP2B
      COMMON /QTYP2D/ QTYP2D
      INTEGER QTYP2D
      COMMON /RMTRC/ RMTRC
      COMMON /SPC1/ SPC1
      INTEGER SPC1
      COMMON /SPC2/ SPC2
      INTEGER SPC2
      COMMON /TEFM/ TEFM
      COMMON /TIME1/ TIME1(999)
      INTEGER TIME1
      COMMON /TORB/ TORB
      COMMON /TORD/ TORD
```

```
      COMMON /TRAVB/ TRAVB
      COMMON /TRAV1D/ TRAV1D
      COMMON /TYP2TF/ TYP2TF
      COMMON /T2BA/ T2BA
      COMMON /T2DA/ T2DA
      REAL ITPF1
      REAL ITPF2
      REAL ITPF3
      REAL ITPF4
      REAL ITPF5
C
C
      T1=0.
      T2DA=0.
      T2BA=0.
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        T1=T1+TIME1(I)
        T2DA=TIME1(I)*U(1-COND(I))+T2DA
        TEMO1=0.
        DO 210 NS=1,MXNS
          TEMO1=TEMO1+ERTBI(I,NS)
  210   CONTINUE
        TEMP=TEMO1
        T2BA=T2BA+TIME1(I)*U(TEMP)
  220 CONTINUE
      T2DA=T2DA*TYP2TF
      T2BA=T2BA*TYP2TF
      TEMP=(T2DA*QTYP2D*(1.+(PIUP-1.)*TORD)+T2BA*QTYP2B*(1.+(PIUP-1.)*
     +  TORB))/(HPD2*SPC2)
      MTRC=AINT(T1/HPD1+.9)*AINT(QTYP1/SPC1+.9)*CPD1+QTYP1*(AINT(T1/
     +  HPD1+.9)*PAL1+TRAV1D*U(T1))+AINT(TEMP+.9)*CPD2+(1.+(PIUP-1.)*
     +  TORD)*QTYP2D*(AINT(T2DA/HPD2+.9)*PAL2D+TRAV1D*U(T2DA))+(1.+
     +  (PIUP-1.)*TORB)*QTYP2B*(AINT(T2BA/HPD2+.9)*PAL2B+TRAVB*U(T2BA))+
     +  TEFM
      IMTRC=AINT(T1/HPD1+.9)*AINT(QTYP1/SPC1+.9)*CPD1+QTYP1*(AINT(T1/
     +  HPD1+.9)*PAL1+TRAV1D*U(T1))+AINT((T2DA*QTYP2D+T2BA*QTYP2B)/
     +  (HPD2*SPC2)+.9)*CPD2+QTYP2D*(AINT(T2DA/HPD2+.9)*PAL2D+TRAV1D*
     +  U(T2DA))+QTYP2B*(AINT(T2BA/HPD2+.9)*PAL2B+TRAVB*U(T2BA))+TEFM
      RMTRC=MTRC-IMTRC
      TEMP=(T2DA*QTYP2D*(1.+(PIUP-1.)*TORD)+T2BA*QTYP2B*(1.+(PIUP-1.)*
     +  TORB))/(HPD2*SPC2)
      BMTRC=0.
      T2=QTYP2D*T2DA+QTYP2B*T2BA
      IF(.NOT.(T2.GE.0.000001)) GO TO 230
        BMTRC=(QTYP2B*T2BA)/T2*AINT(TEMP+.9)*CPD2+(1.+(PIUP-1.)*TORB)*
     +    QTYP2B*(AINT(T2BA/HPD2+.9)*PAL2B+TRAVB*U(T2BA))
```

```
  230 CONTINUE
      DMTRC=MTRC-BMTRC
      DO 290 IXXX1=1,MXI
        I=INO(IXXX1)
        ITPF2=0.
        ITPF3=0.
        ITPF4=0.
        ITPF5=0.
        ITPF1=TIME1(I)/T1
        TEMO2=0.
        DO 240 NS=1,MXNS
          TEMO2=TEMO2+ERTBI(I,NS)
  240   CONTINUE
        TEMP=TEMO2
        T2=QTYP2D*T2DA+QTYP2B*T2BA
        IF(.NOT.(T2.GE.0.000001)) GO TO 250
          ITPF2=TYP2TF*TIME1(I)*(QTYP2D*U(1.-COND(I))+QTYP2B*U(TEMP))*
     +      1./T2
  250   CONTINUE
        IF(.NOT.(T2DA.GE.0.000001)) GO TO 260
          ITPF3=TYP2TF*TIME1(I)*U(1.-COND(I))/T2DA
  260   CONTINUE
        IF(.NOT.(T2BA.GE.0.000001)) GO TO 270
          ITPF4=TYP2TF*TIME1(I)*U(TEMP)/T2BA
  270   CONTINUE
        T3=QTYP1*T1+QTYP2D*T2DA+QTYP2B*T2BA
        IF(.NOT.(T3.GE.0.000001)) GO TO 280
          ITPF5=TIME1(I)*(QTYP1+TYP2TF*(QTYP2D*U(1.-COND(I))+QTYP2B*
     +      U(TEMP)))*1./T3
  280   CONTINUE
        TEMP=(T2DA*QTYP2D*(1.+(PIUP-1.)*TORD)+T2BA*QTYP2B*(1.+(PIUP-1.)*
     +    TORB))*1./(HPD2*SPC2)
        TERM1=ITPF1*(AINT(T1/HPD1+.9)*AINT(QTYP1/SPC1+.9)*CPD1+QTYP1*
     +    (AINT(T1/HPD1+.9)*PAL1+TRAV1D*U(T1)))
        TERM2=ITPF2*AINT(TEMP+.9)*CPD2
        TERM3=ITPF3*(1.+(PIUP-1.)*TORD)*QTYP2D*(AINT(T2DA/HPD2+.9)*
     +    PAL2D+TRAV1D*U(T2DA))
        TERM4=ITPF4*(1.+(PIUP-1.)*TORB)*QTYP2B*(AINT(T2BA/HPD2+.9)*
     +    PAL2B+TRAVB*U(T2BA))
        TERM5=ITPF5*TEFM
        MTRCI(I)=TERM1+TERM2+TERM3+TERM4+TERM5
  290 CONTINUE
C
      RETURN
      END
```

```
      FUNCTION CHLCC(CC,CR,CN,I)
C                                                                    800827 112150107
C*********************************************************************************
C*  SSS MOD SLR - 20 MAY 80                                                      *
C*  COMPUTES CHANGE IN LCC FOR REPAIR LEVEL SENSITIVITY                          *
C*********************************************************************************
C
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /B/ B
      INTEGER B
      COMMON /BAA/ BAA
      COMMON /BCMH/ BCMH(999)
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BMH/ BMH(999)
      COMMON /BRCT/ BRCT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CIMF/ CIMF(16)
      COMMON /COND/ COND(999)
      COMMON /CPPD/ CPPD(3)
      COMMON /CRCT/ CRCT
      COMMON /CSE/ CSE(250)
      COMMON /DAA/ DAA
      COMMON /DAD/ DAD
      COMMON /DLR/ DLR
      COMMON /DMF/ DMF
      COMMON /DMH/ DMH(999)
      COMMON /DRCT/ DRCT(3)
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /HDWRIT/ HDWRIT(999,10)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /ISETD/ ISETD(250)
      REAL ISETD
      COMMON /L/ L
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /LT/ LT
```

```
COMMON /MSE/ MSE(250)
REAL MSE
COMMON /MXIRMT/ MXIRMT
COMMON /MXL/ MXL
COMMON /MXLT/ MXLT
COMMON /MXNP/ MXNP
COMMON /MXNS/ MXNS
COMMON /NBC/ NBC(16)
REAL NBC
COMMON /NFB/ NFB(999,16)
REAL NFB
COMMON /NFD/ NFD(999)
REAL NFD
COMMON /NHB/ NHB(16)
COMMON /NHI/ NHI(999)
COMMON /NITEM/ NITEM(999,10)
REAL NITEM
COMMON /NJA/ NJA(999,4)
COMMON /NP/ NP
COMMON /NRM/ NRM(999)
COMMON /NRTS/ NRTS(999)
REAL NRTS
COMMON /NRUC/ NRUC
REAL NRUC
COMMON /NS/ NS
COMMON /NSEB/ NSEB(250,16)
REAL NSEB
COMMON /NSED/ NSED(250)
REAL NSED
COMMON /OST/ OST(3)
COMMON /PA/ PA(999)
COMMON /PIUP/ PIUP
COMMON /QSA/ QSA(999,4,30)
COMMON /RM/ RM(999)
COMMON /RMI/ RMI(999,16)
INTEGER RMI
COMMON /RSCA/ RSCA(999)
COMMON /RTS/ RTS(999)
COMMON /SA/ SA
COMMON /SAT/ SAT(16)
COMMON /SEINO/ SEINO(250)
INTEGER SEINO
COMMON /TNB/ TNB(16)
COMMON /TOTT/ TOTT(10)
COMMON /UP/ UP(999)
COMMON /USE/ USE(250,16)
COMMON /USED/ USED(250)
```

```
      COMMON /WT/ WT(999)
      COMMON /XFPR/ XFPR
      COMMON /XITEMQ/ XITEMQ(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
      DIMENSION CHSE(250,16)
      DIMENSION CHSED(250)
      DIMENSION CNFB(16)
      DIMENSION CPP(16)
      DIMENSION CRH(16)
      REAL NHNRT
      REAL NHRT
C
C
C
C.....  CALCULATES CRH(NS),CRHD
      NHRT=0.
      NHNRT=0.
      IF(.NOT.(NHI(I).NE.0)) GO TO 210
        NHRT=RTS(NHI(I))
        NHNRT=NRTS(NHI(I))
  210 CONTINUE
      DO 240 NS=1,MXNS
        CRH(NS)=0.
        IF(.NOT.(BTYPE(NS).NE.3)) GO TO 230
          TEM01=0.
          DO 220 B=1,MXNS
            IF(.NOT.(NHB(B).EQ.NS)) GO TO 220
            TEM01=TEM01+FAIL(I,B)*NBC(B)
  220     CONTINUE
          CRH(NS)=FAIL(I,NS)*(FLOAT(LRU(I))+NHRT)*CR*BMH(I)*BMF+CIMF(NS)
     +      *TEM01*(FLOAT(LRU(I))+NHRT)*((CR+CN+U(XFPR*FPR(I))*CC)*
     +      BCMH(I)+CR*BMH(I))*BMF
  230   CONTINUE
  240 CONTINUE
      TEM02=0.
      DO 250 NS=1,MXNS
        TEM02=TEM02+FAIL(I,NS)*TNB(NS)
  250 CONTINUE
      CRHD=TEM02*((FLOAT(LRU(I))+NHRT)*CN-NHNRT*CC)*DMH(I)*DMF
C
C.....  CALCULATES CHSE(L,NS) AND CHSED(L)
      DO 270 IXXX1=1,MXL
        L=SEINO(IXXX1)
        CHSED(L)=0.
        DO 260 NS=1,MXNS
          CHSE(L,NS)=0.
```

```
260   CONTINUE
270 CONTINUE
    DO 420 NS=1,MXNS
      NXXX1=NRM(I)
      IF(.NOT.(NXXX1.GT.0)) GO TO 410
        DO 390 IRMT=1,MXIRMT
          IF(.NOT.(IRMT.LE.NXXX1)) GO TO 400
          NXXX2=NJA(I,IRMT)
          IF(.NOT.(NXXX2.GT.0)) GO TO 380
            DO 360 LT=1,MXLT
              IF(.NOT.(LT.LE.NXXX2)) GO TO 370
              L=A(I,IRMT,LT)
              TQSA=0.
              IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 280
                TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
280           CONTINUE
              IF(.NOT.(CRH(NS).GT..000001)) GO TO 290
                CHSE(L,NS)=USE(L,NS)*(CRH(NS)/BAA)*AMAX1(ISET(L,NS),
     +            TQSA)
290           CONTINUE
              IF(.NOT.(CRH(NS).LT.-.000001)) GO TO 310
                IF(.NOT.(ERHAB(L,NS).GT..000001.OR.ERHAB(L,NS).LT.
     +            -.000001)) GO TO 300
                  CHSE(L,NS)=CRH(NS)/ERHAB(L,NS)*NSEB(L,NS)
300             CONTINUE
310           CONTINUE
              TQSA=0.
              IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 320
                TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
320           CONTINUE
              IF(.NOT.(CRHD.GT..000001)) GO TO 330
                CHSED(L)=USED(L)*CRHD/DAA*AMAX1(ISETD(L),TQSA)
330           CONTINUE
              IF(.NOT.(CRHD.LT.-.000001)) GO TO 350
                IF(.NOT.(ERHAD(L).GT..000001.OR.ERHAD(L).LT.
     +            -.000001)) GO TO 340
                  CHSED(L)=CRHD/ERHAD(L)*NSED(L)
340             CONTINUE
350           CONTINUE
360         CONTINUE
370         CONTINUE
380       CONTINUE
390     CONTINUE
400     CONTINUE
410   CONTINUE
420 CONTINUE
C
```

```
C.....  CALCULATES CNFB(NS) AND CNFD
      DO 440 NS=1,MXNS
        TEM03=0.
        DO 430 B=1,MXNS
          IF(.NOT.(NHB(B).EQ.NS)) GO TO 430
          TEM03=TEM03+(FAIL(I,B)*NBC(B))
  430   CONTINUE
        CNFB(NS)=(1.-SAT(NS))*FAIL(I,NS)*(FLOAT(LRU(I))+NHRT)*(CR*BRCT+
     +    (CN+CC)*OST(LO(NS)))+CIMF(NS)*TEM03*(FLOAT(LRU(I))+NHRT)*(CR*
     +    CRCT+(CN+CC)*(OST(LO(NS))+U(XFPR*FPR(I))*CRCT))
  440 CONTINUE
      TEM04=0.
      DO 450 NS=1,MXNS
        TEM04=TEM04+FAIL(I,NS)*TNB(NS)*((FLOAT(LRU(I))+NHRT)*CN*
     +    DRCT(LO(NS))-NHNRT*CC*DAD)
  450 CONTINUE
      CNFD=TEM04
C
C.....  CALCULATES CPP(NS)
      DO 490 NS=1,MXNS
        RTSNFB=RTS(I)*NFB(I,NS)
        IF(.NOT.(RTSNFB.LT..000001)) GO TO 460
          CPP(NS)=U(CR*(CNFB(NS)+NFB(I,NS)))
  460   CONTINUE
        IF(.NOT.(RTSNFB.GT..000001)) GO TO 480
          CPP(NS)=0.
          IF(.NOT.(CR.LT..000001)) GO TO 470
            CPP(NS)=CR/RTS(I)
  470     CONTINUE
  480   CONTINUE
  490 CONTINUE
      TEM05=0.
      DO 500 NS=1,MXNS
        TEM05=TEM05+TNB(NS)*(F(CNFB(NS)+NFB(I,NS))-F(NFB(I,NS)))
  500 CONTINUE
      XITEMQ(I)=TEM05+(F(CNFD+NFD(I))-F(NFD(I)))
C
C.....  CALCULATES CHLCC
      CD=0.
      IF(.NOT.(LRU(I).EQ.0)) GO TO 510
        CD=COND(NHI(I))
  510 CONTINUE
      TEM06=0.
      DO 520 NS=1,MXNS
        TEM06=TEM06+TNB(NS)*(F(CNFB(NS)+NFB(I,NS)))
  520 CONTINUE
      CHLCCA=(TEM06+(F(CNFD+NFD(I))))*UP(I)*XLEARN(I)*XUC-ISCA(I)+(NRUC*
```

```
     +  XLEARN(I)+(PIUP-NRUC))*YRSQ(I)*((COND(I)+CC)+(1.-(COND(I)+CC))*
     +  RM(I))*UP(I)*XUC-RSCA(I)
        TEM07=0.
        DO 530 NS=1,MXNS
          TEM07=TEM07+FAIL(I,NS)*TNB(NS)*((FLOAT(LRU(I))+NHRT)*(CR*BMH(I)*
     +      BMF*BLR+CN*(DMH(I)*DMF*DLR+2.*CPPD(LO(NS))*WT(I))+CC*
     +      CPPD(LO(NS))*WT(I))-NHNRT*CC*DMH(I)*DMF*DLR)
    530 CONTINUE
        CHLCCB=12.*PIUP*TEM07
        CHLCCD=0.
        NXXX1=NRM(I)
        IF(.NOT.(NXXX1.GT.0)) GO TO 610
          DO 600 IRMT=1,MXIRMT
            NXXX2=NJA(I,IRMT)
            IF(.NOT.(NXXX2.GT.0)) GO TO 590
              DO 570 LT=1,MXLT
                IF(.NOT.(LT.LE.NXXX2)) GO TO 580
                L=A(I,IRMT,LT)
                CHLCCC=0.
                DO 550 NS=1,MXNS
                  IF(.NOT.(IRMT.EQ.RMI(I,NS))) GO TO 540
                    CHLCCC=CHLCCC+U(QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/
     +                100.)*100.)*TNB(NS)*CHSE(L,NS)
    540           CONTINUE
    550         CONTINUE
                CHLCCF=0.
                IF(.NOT.(IRMT.EQ.1)) GO TO 560
                  CHLCCF=CHLCCF+CHSED(L)*U(QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,
     +              LT)/100.)*100.)
    560         CONTINUE
                CHLCCD=CHLCCD+((CHLCCC+CHLCCF)*CSE(L)*(1.+PIUP*MSE(L)))
    570       CONTINUE
    580       CONTINUE
    590     CONTINUE
    600   CONTINUE
    610 CONTINUE
        TEM08=0.
        DO 620 NS=1,MXNS
          TEM08=TEM08+(1.-SAT(NS))*TNB(NS)*PIUP*SA*(AMIN1(F(CNFB(NS)+
     +      NFB(I,NS)),1.)-AMIN1(F(NFB(I,NS)),1.)+CPP(NS)*PA(I))
    620 CONTINUE
        TEM09=0.
        DO 630 NP=1,MXNP
          TEM09=TEM09+TOTT(NP)*(NITEM(I,NP)*UP(I)*XLEARN(I)*XUC-HDWRIT(I,
     +      NP))
    630 CONTINUE
        CHLCCE=TEM08+TEM09
```

```
      CHLCC=CHLCCA+CHLCCB+CHLCCD+CHLCCE
C
      RETURN
      END
```

```
      SUBROUTINE DPIUP
C                                                              800827 112313688
C*****************************************************************************
C*  COMPUTES PROGRAM OPERATIONAL                                             *
C*  SSS MOD SLR-4 JUNE 1980                                                  *
C*  LIFETIME - PIUP FACTOR                                                   *
C*****************************************************************************
C
      COMMON /COND/ COND(999)
      COMMON /CPIUP/ CPIUP
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IIMCR/ IIMCR
      REAL IIMCR
      COMMON /INO/ INO(999)
      COMMON /LDERV/ LDERV
      COMMON /MXI/ MXI
      COMMON /OC/ OC
      COMMON /OFMC/ OFMC
      COMMON /ONMC/ ONMC
      COMMON /PIUP/ PIUP
      COMMON /RM/ RM(999)
      COMMON /RMTRC/ RMTRC
      COMMON /SECR/ SECR
      COMMON /STDCR/ STDCR
      COMMON /TDPIUP/ TDPIUP
      COMMON /UP/ UP(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
C
C
      CPIUP=AINT(FINC*PIUP+.5)
      TEM01=0.
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=TEM01+YRSQ(I)*(COND(I)+(1.-COND(I))*RM(I))*UP(I)
  210 CONTINUE
      T1=PIUP*TEM01*XUC
      TDPIUP=CPIUP/PIUP*(OC+ONMC+OFMC+SECR+IIMCR+T1+PIUP/(PIUP-1.)*
     +  (STDCR+RMTRC))/1000000.
C
      RETURN
      END
```

```
      SUBROUTINE DLMF
C                                                                    800827 112329512
C*********************************************************************************
C*  BASELINE CHANGE                                                              *
C*  COMPUTES MAINTENANCE REPAIR TIME                                             *
C*  FACTORS - BMF AND DMF                                                        *
C*********************************************************************************
C
      COMMON /BAA/ BAA
      COMMON /BLR/ BLR
      COMMON /CSE/ CSE(250)
      COMMON /DAA/ DAA
      COMMON /DLR/ DLR
      COMMON /ERHAB/ ERHAB(250,16)
      COMMON /ERHAD/ ERHAD(250)
      COMMON /ERHBI/ ERHBI(999,16)
      COMMON /ERHD/ ERHD(999)
      COMMON /FINC/
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /ISETD/ ISETD(250)
      REAL ISETD
      COMMON /L/ L
      COMMON /LDERV/ LDERV
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXI/ MXI
      COMMON /MXL/ MXL
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /ONMC/ ONMC
      COMMON /PIUP/ PIUP
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /TDMF/ TDMF
      COMMON /TNB/ TNB(16)
      COMMON /USE/ USE(250,16)
      COMMON /USED/ USED(250)
C
C
      TDMFA=FINC*ONMC
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=0.
        DO 210 NS=1,MXNS
```

```
          TEM01=TEM01+ERHBI(I,NS)*TNB(NS)
  210     CONTINUE
          TDMFA=TDMFA+12.*PIUP*FINC*(TEM01*BLR+ERHD(I)*DLR)
  220   CONTINUE
        TEM03=0.
        DO 240 IXXX1=1,MXL
          L=SEINO(IXXX1)
          TEM02=0.
          DO 230 NS=1,MXNS
            TEM02=TEM02+(USE(L,NS)*ERHAB(L,NS)*ISET(L,NS)*TNB(NS)/BAA)
  230     CONTINUE
          TEM03=TEM03+(TEM02+USED(L)*ERHAD(L)*ISETD(L)/DAA)*CSE(L)*(1.+
     +      PIUP*MSE(L))
  240   CONTINUE
        TDMF=TDMFA+FINC*TEM03
        TDMF=TDMF/1000000.
C
        RETURN
        END
```

```
      SUBROUTINE DRM
C                                                                    800827 112337774
C*****************************************************************************
C*  SSS MOD SLR - 5 JUN 80                                                   *
C*  COMPUTES ITEM SPECIFIC REPAIR MATERIALS COST                             *
C*  FACTOR - RM(I)                                                           *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /COND/ COND(999)
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IDRM/ IDRM(999)
      COMMON /INO/ INO(999)
      COMMON /LC/ LC(999)
      REAL LC
      COMMON /LDERV/ LDERV
      COMMON /LDRM/ LDRM
      COMMON /MXI/ MXI
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /PIUP/ PIUP
      COMMON /RM/ RM(999)
      COMMON /TDRM/ TDRM(999)
      COMMON /UP/ UP(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
C
C
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TDRM(I)=(NRUC*LC(I)+(PIUP-NRUC))*YRSQ(I)*((1.-COND(I))*FINC*
     +    RM(I))*UP(I)*XUC/1000000.
  210 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDRM  (IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDRM
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
      CALL TDSORT(TDRM  ,IDRM  ,LD,MXI   )
C
      RETURN
      END
```

```
      SUBROUTINE DXRM
C                                                                  800827 112344184
C*****************************************************************************
C*  COMPUTES GLOBAL REPAIR MATERIALS COST                                    *
C*  FACTOR - XRM                                                             *
C*****************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LDERV/ LDERV
      COMMON /MXI/ MXI
      COMMON /TDRM/ TDRM(999)
      COMMON /TDXRM/ TDXRM
C
C
      TEM01=0.
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=TEM01+TDRM(I)
  210 CONTINUE
      TDXRM=TEM01
C
      RETURN
      END
```

```
      SUBROUTINE DXUC
C
C                                                                    800827 112344681
C*************************************************************************************
C*  COMPUTES GLOBAL UNIT COST FACTOR - XUC                                           *
C*  SSS MOD SLR - 23 JUNE 80                                                         *
C*************************************************************************************
C
      COMMON /FINC/ FINC
      COMMON /ISC/ ISC
      REAL ISC
      COMMON /LDERV/ LDERV
      COMMON /RSC/ RSC
      COMMON /TDXUC/ TDXUC
      COMMON /TERMH/ TERMH
C
C
      TDXUC=(FINC*(TERMH+ISC+RSC))/1000000.
C
      RETURN
      END
```

```
      SUBROUTINE DUP
C                                                                  800827 112349357
C*****************************************************************************
C*  SSS MOD SLR - 5 JUN 80                                                   *
C*  COMPUTES ITEM SPECIFIC UNIT COST                                         *
C*  FACTOR - UP(I)                                                           *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IDUP/ IDUP(999)
      COMMON /INO/ INO(999)
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /LC/ LC(999)
      REAL LC
      COMMON /LDERV/ LDERV
      COMMON /LDUP/ LDUP
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /RSCA/ RSCA(999)
      COMMON /TDUP/ TDUP(999)
      COMMON /TOTT/ TOTT(10)
      COMMON /UP/ UP(999)
      COMMON /XUC/ XUC
C
C
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=0.
        DO 210 NP=1,MXNP
          TEM01=TEM01+TOTT(NP)*NITEM(I,NP)
  210   CONTINUE
        TDUP(I)=FINC*(TEM01*UP(I)*LC(I)*XUC+(ISCA(I)+RSCA(I)))/1000000.
  220 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDUP  (IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDUP
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
      CALL TDSORT(TDUP  ,IDUP  ,LD,MXI   )
```

```
C
      RETURN
      END
```

```
      SUBROUTINE DFR
C                                                              800827 112356025
C*****************************************************************************
C*  SSS MOD SLR - 5 JUN 80                                                   *
C*  COMPUTES ITEM SPECIFIC FAILURE RATE                                      *
C*   - FR(I)                                                                 *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /BAA/ BAA
      COMMON /COND/ COND(999)
      COMMON /CSE/ CSE(250)
      COMMON /DAA/ DAA
      COMMON /ERHBI/ ERHBI(999,16)
      COMMON /ERHD/ ERHD(999)
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IDFR/ IDFR(999)
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /ISETD/ ISETD(250)
      REAL ISETD
      COMMON /L/ L
      COMMON /LDERV/ LDERV
      COMMON /LDFR/ LDFR
      COMMON /LT/ LT
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXLT/ MXLT
      COMMON /MXNS/ MXNS
      COMMON /NFB/ NFB(999,16)
      REAL NFB
      COMMON /NFD/ NFD(999)
      REAL NFD
      COMMON /NJA/ NJA(999,4)
      COMMON /NRM/ NRM(999)
      COMMON /NRUC/ NRUC
```

```
      REAL NRUC
      COMMON /NS/ NS
      COMMON /OFMCA/ OFMCA(999)
      COMMON /ONMCA/ ONMCA(999)
      COMMON /PIUP/ PIUP
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RM/ RM(999)
      COMMON /RMI/ RMI(999,16)
      INTEGER RMI
      COMMON /RSCA/ RSCA(999)
      COMMON /SA/ SA
      COMMON /TDFR/ TDFR(999)
      COMMON /TISQ/ TISQ(999)
      COMMON /TISQN/ TISQN(999)
      COMMON /TNB/ TNB(16)
      COMMON /TQSA/ TQSA
      COMMON /UP/ UP(999)
      COMMON /USE/ USE(250,16)
      COMMON /USED/ USED(250)
      COMMON /XITEMQ/ XITEMQ(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
C
C
      DO 320 IXXX1=1,MXI
        I=INO(IXXX1)
        TEMO1=0.
        DO 210 NS=1,MXNS
          TEMO1=TEMO1+TNB(NS)*F((1.+FINC)*NFB(I,NS))
  210   CONTINUE
        TISQN(I)=TEMO1+F((1.+FINC)*NFD(I))
        XITEMQ(I)=(TISQN(I)-TISQ(I))+FINC*NRUC*YRSQ(I)
        TDFRA=(1.+FINC)*(NRUC*XLEARN(I)+(PIUP-NRUC))*YRSQ(I)*(COND(I)+
     +    (1.-COND(I))*RM(I))*UP(I)*XUC-RSCA(I)+TISQN(I)*UP(I)*XLEARN(I)
     +    *XUC-ISCA(I)+FINC*(ONMCA(I)+OFMCA(I))
        TDFRB=0.
        NXXX1=NRM(I)
        IF(.NOT.(NXXX1.GT.0)) GO TO 300
          DO 280 IRMT=1,MXIRMT
            IF(.NOT.(IRMT.LE.NXXX1)) GO TO 290
            NXXX2=NJA(I,IRMT)
            IF(.NOT.(NXXX2.GT.0)) GO TO 270
              DO 250 LT=1,MXLT
                IF(.NOT.(LT.LE.NXXX2)) GO TO 260
                L=A(I,IRMT,LT)
                TDFRB1=0.
                DO 230 NS=1,MXNS
```

```
                IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 220
                  TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
                  TDFRB1=USE(L,NS)*ERHBI(I,NS)*U(TQSA)*ISET(L,NS)*
     +              TNB(NS)/BAA+TDFRB1
  220           CONTINUE
  230         CONTINUE
              TDFRB2=0.
              IF(.NOT.(IRMIN(I,IRMT).EQ.1)) GO TO 240
                TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
                TDFRB2=USED(L)*ERHD(I)*U(TQSA)*ISETD(L)/DAA
  240         CONTINUE
              TDFRB=TDFRB+FINC*(TDFRB1+TDFRB2)*CSE(L)*(1.+PIUP*MSE(L))
  250       CONTINUE
  260       CONTINUE
  270     CONTINUE
  280   CONTINUE
  290   CONTINUE
  300 CONTINUE
      TEM02=0.
      DO 310 NS=1,MXNS
        TEM02=TEM02+(AMIN1(F((1.+FINC)*NFB(I,NS)),1.)-AMIN1(F(NFB(I,
     +    NS)),1.))*TNB(NS)
  310 CONTINUE
      TDFR(I)=(TDFRA+TDFRB+TEM02*PIUP*SA)/1000000.
  320 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDFR  (IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDFR
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
      CALL TDSORT(TDFR  ,IDFR  ,LD,MXI   )
C
      RETURN
      END
```

```
      SUBROUTINE DXFR
C                                                                  800827 112421245
C*****************************************************************************
C*  COMPUTES GLOBAL FAILURE RATE FACTOR - XFR                                *
C*****************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LDERV/ LDERV
      COMMON /MXI/ MXI
      COMMON /TDFR/ TDFR(999)
      COMMON /TDXFR/ TDXFR
C
C
      TEM01=0.
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=TEM01+TDFR(I)
  210 CONTINUE
      TDXFR=TEM01
C
      RETURN
      END
```

```
      SUBROUTINE DFPR
C                                                              800827 112432081
C*****************************************************************************
C*  COMPUTES ITEM FALSE PULL RATE - FPR(I)                                   *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /B/ B
      INTEGER B
      COMMON /BAA/ BAA
      COMMON /BCMH/ BCMH(999)
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BRCT/ BRCT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CIMF/ CIMF(16)
      COMMON /COND/ COND(999)
      COMMON /CPPC/ CPPC
      COMMON /CRCT/ CRCT
      COMMON /CSE/ CSE(250)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FINC/ FINC
      COMMON /FPR/ FPR(999)
      COMMON /HDWRIT/ HDWRIT(999,10)
      COMMON /I/ I
      COMMON /IDFPR/ IDFPR(999)
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /L/ L
      COMMON /LDERV/ LDERV
      COMMON /LDFPR/ LDFPR
      COMMON /LRU/ LRU(999)
      COMMON /LT/ LT
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXLT/ MXLT
```

```
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NFB/ NFB(999,16)
      REAL NFB
      COMMON /NHB/ NHB(16)
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NJA/ NJA(999,4)
      COMMON /NP/ NP
      COMMON /NRM/ NRM(999)
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /NS/ NS
      COMMON /OSTC/ OSTC
      COMMON /PIUP/ PIUP
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RM/ RM(999)
      COMMON /RMH/ RMH(999)
      COMMON /RMI/ RMI(999,16)
      INTEGER RMI
      COMMON /RSCA/ RSCA(999)
      COMMON /SA/ SA
      COMMON /SAT/ SAT(16)
      COMMON /TDFPR/ TDFPR(999)
      COMMON /TEMP/ TEMP
      COMMON /TISQ/ TISQ(999)
      COMMON /TNB/ TNB(16)
      COMMON /TOTT/ TOTT(10)
      COMMON /TQSA/ TQSA
      COMMON /UP/ UP(999)
      COMMON /USE/ USE(250,16)
      COMMON /WT/ WT(999)
      COMMON /XFPR/ XFPR
      COMMON /XITEMQ/ XITEMQ(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
      DIMENSION CHNFB(999,16)
C
C
      DO 270 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 220
          DO 210 IXXX2=1,MXI
            I=INO(IXXX2)
            CHNFB(I,NS)=FAIL(I,NS)*FLOAT(LRU(I))*FINC*FPR(I)*XFPR*OSTC
  210     CONTINUE
```

```
220   CONTINUE
      IF(.NOT.(BTYPE(NS).NE.3)) GO TO 260
        DO 250 IXXX2=1,MXI
          I=INO(IXXX2)
          CHNFB(I,NS)=FAIL(I,NS)*FLOAT(LRU(I))*FINC*FPR(I)*XFPR*BRCT
          IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 240
            TEM01=0.
            DO 230 B=1,MXNS
              IF(.NOT.(NHB(B).EQ.NS)) GO TO 230
              TEM01=TEM01+FAIL(I,B)*NBC(B)
230         CONTINUE
            CHNFB(I,NS)=CHNFB(I,NS)+CIMF(NS)*TEM01*FLOAT(LRU(I))*FINC*
     +        FPR(I)*XFPR*CRCT
240       CONTINUE
250     CONTINUE
260   CONTINUE
270 CONTINUE
    DO 430 IXXX1=1,MXI
      I=INO(IXXX1)
      TDFPR(I)=0.
      IF(.NOT.(LRU(I).NE.0)) GO TO 420
        TEM02=0.
        DO 280 NS=1,MXNS
          TEM02=TEM02+TNB(NS)*(F(NFB(I,NS)+CHNFB(I,NS))-F(NFB(I,NS)))
280     CONTINUE
        XITEMQ(I)=TEM02
        TEM03=0.
        DO 290 NS=1,MXNS
          TEM03=TEM03+TNB(NS)*FAIL(I,NS)
290     CONTINUE
        TDFPRA=(TISQ(I)+XITEMQ(I))*UP(I)*XLEARN(I)*XUC-ISCA(I)+12.*
     +    PIUP*TEM03*FINC*FPR(I)*XFPR*RMH(I)*BMF*BLR
        TEM04=0.
        DO 300 NS=1,MXNS
          TEM04=TEM04+TNB(NS)*FAIL(I,NS)*(BCMH(I)*BMF*BLR+SAT(NS)*2.*
     +      CPPC*WT(I))
300     CONTINUE
        TDFPRB=12.*PIUP*TEM04*FINC*XFPR*FPR(I)
        TDFPRC=0.
        DO 390 NS=1,MXNS
          TEMP=0.
          NXXX1=NRM(I)
          IF(.NOT.(NXXX1.GT.0)) GO TO 370
            DO 350 IRMT=1,MXIRMT
              IF(.NOT.(IRMT.LE.NXXX1)) GO TO 360
              IF(.NOT.(IRMIN(I,IRMT).EQ.RMI(I,NS))) GO TO 340
                NXXX2=NJA(I,IRMT)
```

```
                IF(.NOT.(NXXX2.GT.0)) GO TO 330
                  DO 310 LT=1,MXLT
                    IF(.NOT.(LT.LE.NXXX2)) GO TO 320
                    TQSA=QSA(I,IRMT,LT)-AINT(QSA(I,IRMT,LT)/100.)*100.
                    L=A(I,IRMT,LT)
                    TEMP=TEMP+U(TQSA)*USE(L,NS)*ISET(L,NS)*CSE(L)*(1.+
     +                PIUP*MSE(L))
  310               CONTINUE
  320               CONTINUE
  330             CONTINUE
  340           CONTINUE
  350         CONTINUE
  360         CONTINUE
  370       CONTINUE
            TEM05=0.
            DO 380 B=1,MXNS
              IF(.NOT.(NHB(B).EQ.NS)) GO TO 380
              TEM05=TEM05+FAIL(I,B)*NBC(B)
  380       CONTINUE
            TDFPRC=TDFPRC+(1.-SAT(NS))*(FAIL(I,NS)+CIMF(NS)*TEM05)*TEMP
  390     CONTINUE
          TDFPRC=TDFPRC*FINC*FPR(I)*XFPR*BCMH(I)*BMF/BAA
          TEM06=0.
          DO 400 NS=1,MXNS
            TEM06=TEM06+TNB(NS)*(AMIN1(F(CHNFB(I,NS)+NFB(I,NS)),1.)-
     +        AMIN1(F(NFB(I,NS)),1.))
  400     CONTINUE
          TEM07=0.
          DO 410 NP=1,MXNP
            TEM07=TEM07+TOTT(NP)*(NITEM(I,NP)*UP(I)*XLEARN(I)*XUC-
     +        HDWRIT(I,NP))
  410     CONTINUE
          TDFPRD=TEM06*PIUP*SA+TEM07+(NRUC*XLEARN(I)+(PIUP-NRUC))*
     +      YRSQ(I)*(COND(I)+(1.-COND(I))*RM(I))*UP(I)*XUC-RSCA(I)
          TDFPR(I)=(TDFPRA+TDFPRB+TDFPRC+TDFPRD)/1000000.
  420   CONTINUE
  430 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDFPR (IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDFPR
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
      CALL TDSORT(TDFPR ,IDFPR ,LD,MXI   )
C
      RETURN
      END
```

```
      SUBROUTINE DXFPR
C                                                              800827 112507129
C*************************************************************************
C*  COMPUTES GLOBAL FALSE PULL RATE -                                    *
C*  XFPR FACTOR                                                          *
C*************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LDERV/ LDERV
      COMMON /MXI/ MXI
      COMMON /TDFPR/ TDFPR(999)
      COMMON /TDXFPR/ TDXFPR
C
C
      TEM01=0.
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=TEM01+TDFPR(I)
  210 CONTINUE
      TDXFPR=TEM01
C
      RETURN
      END
```

```
      SUBROUTINE DRTS
C                                                                  800827 112511521
C*****************************************************************************
C*  COMPUTES ITEM BASE REPAIR FRACTION                                       *
C*  -RTS(I) FACTOR - DRTS                                                    *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /COND/ COND(999)
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IDRTS/ IDRTS(999)
      COMMON /INO/ INO(999)
      COMMON /LDERV/ LDERV
      COMMON /LDRTS/ LDRTS
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /TDRTS/ TDRTS(999)
C
C
      DO 250 IXXX1=1,MXI
        I=INO(IXXX1)
        TDRTS(I)=0.
        IF(.NOT.(COND(I).EQ.1.)) GO TO 210
          CR=AMIN1(FINC,1.)
          CN=0.
          CC=-1.*CR
  210   CONTINUE
        IF(.NOT.(COND(I).LT.1.)) GO TO 220
          CR=AMIN1(FINC,NRTS(I))
          CN=-1.*CR
          CC=0.
  220   CONTINUE
        IF(.NOT.(CR.GT.0.)) GO TO 230
          TDRTS(I)=(CHLCC(CC,CR,CN,I))/1000000.
  230   CONTINUE
        IF(.NOT.(TDRTS(I).GT.-0.000001)) GO TO 240
          TDRTS(I)=0.
  240   CONTINUE
  250 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDRTS (IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDRTS
```

```
      IF (PRNTXX.NE.0) LD=MAXO(LD,LDERV )
      CALL TDSORT(TDRTS ,IDRTS ,LD,MXI   )
C
      RETURN
      END
```

```
      SUBROUTINE DNRTS
C                                                                  800827 112521167
C*****************************************************************************
C*  COMPUTES ITEM DEPOT REPAIR FRACTION -                                    *
C*  NRTS(I) FACTOR - DNRTS                                                   *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /COND/ COND(999)
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IDNRTS/ IDNRTS(999)
      COMMON /INO/ INO(999)
      COMMON /LDERV/ LDERV
      COMMON /LDNRTS/ LDNRTS
      COMMON /MXI/ MXI
      COMMON /RTS/ RTS(999)
      COMMON /TDNRTS/ TDNRTS(999)
C
C
      DO 250 IXXX1=1,MXI
        I=INO(IXXX1)
        TDNRTS(I)=0.
        IF(.NOT.(COND(I).EQ.1.)) GO TO 210
          CN=AMIN1(FINC,1.)
          CR=0.
          CC=-1.*CN
  210   CONTINUE
        IF(.NOT.(COND(I).LT.1.)) GO TO 220
          CN=AMIN1(FINC,RTS(I))
          CR=-1.*CN
          CC=0.
  220   CONTINUE
        IF(.NOT.(CN.GT.0.)) GO TO 230
          TDNRTS(I)=(CHLCC(CC,CR,CN,I))/1000000.
  230   CONTINUE
        IF(.NOT.(TDNRTS(I).GT.-0.000001)) GO TO 240
          TDNRTS(I)=0.
  240   CONTINUE
  250 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDNRTS(IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDNRTS
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
```

```
      CALL TDSORT(TDNRTS,IDNRTS,LD,MXI    )
C
      RETURN
      END
```

```
      SUBROUTINE DCOND
C                                                                  800827 112537576
C*****************************************************************************
C*  COMPUTES ITEM CONDEMNATION RATE -                                        *
C*  COND(I) FACTOR - DCOND                                                   *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /COND/ COND(999)
      COMMON /FINC/ FINC
      COMMON /I/ I
      COMMON /IDCOND/ IDCOND(999)
      COMMON /INO/ INO(999)
      COMMON /LDCOND/ LDCOND
      COMMON /LDERV/ LDERV
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RTS/ RTS(999)
      COMMON /TDCOND/ TDCOND(999)
C
C
      DO 250 IXXX1=1,MXI
        I=INO(IXXX1)
        TDCOND(I)=0.
        IF(.NOT.(COND(I).EQ.1.)) GO TO 210
          CC=0.
          CR=0.
          CN=0.
  210   CONTINUE
        IF(.NOT.(COND(I).LT.1.)) GO TO 220
          CC=AMIN1(FINC,1.-COND(I))
          CR=-1.*RTS(I)/(RTS(I)+NRTS(I))*CC
          CN=-1.*NRTS(I)/(RTS(I)+NRTS(I))*CC
  220   CONTINUE
        IF(.NOT.(CC.GT.0.)) GO TO 230
          TDCOND(I)=(CHLCC(CC,CR,CN,I))/1000000.
  230   CONTINUE
        IF(.NOT.(TDCOND(I).GT.-0.000001)) GO TO 240
          TDCOND(I)=0.
  240   CONTINUE
  250 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDCOND(IXXX)=INO   (IXXX)
  999 CONTINUE
```

```
      LD=LDCOND
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
      CALL TDSORT(TDCOND,IDCOND,LD,MXI    )
C
      RETURN
      END
```

```
      SUBROUTINE DSRU
C                                                              800827 112549404
C*****************************************************************************
C*  SSS MOD JRC - 5 JUN 80                                                   *
C*  COMPUTES SENSITIVITY ON WHICH SRUS                                       *
C*  SHOULD BE LRUS - DSRU                                                    *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /B/ B
      INTEGER B
      COMMON /BAA/ BAA
      COMMON /BCMH/ BCMH(999)
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BMH/ BMH(999)
      COMMON /BRCT/ BRCT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CIMF/ CIMF(16)
      COMMON /COND/ COND(999)
      COMMON /CPPC/ CPPC
      COMMON /CPPD/ CPPD(3)
      COMMON /CRCT/ CRCT
      COMMON /CSE/ CSE(250)
      COMMON /DAA/ DAA
      COMMON /DLR/ DLR
      COMMON /DMF/ DMF
      COMMON /DMH/ DMH(999)
      COMMON /DRCT/ DRCT(3)
      COMMON /ERHBI/ ERHBI(999,16)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /IDSRU/ IDSRU(999)
      COMMON /INO/ INO(999)
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /IRMT/ IRMT
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /ISET/ ISET(250,16)
      REAL ISET
      COMMON /ISETD/ ISETD(250)
      REAL ISETD
```

```
      COMMON /L/ L
      COMMON /LDERV/ LDERV
      COMMON /LDSRU/ LDSRU
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /LT/ LT
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXI/ MXI
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXLT/ MXLT
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NHB/ NHB(16)
      COMMON /NHI/ NHI(999)
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NJA/ NJA(999,4)
      COMMON /NP/ NP
      COMMON /NRM/ NRM(999)
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /NS/ NS
      COMMON /OFMCA/ OFMCA(999)
      COMMON /OST/ OST(3)
      COMMON /OSTC/ OSTC
      COMMON /PIUP/ PIUP
      COMMON /QSA/ QSA(999,4,30)
      COMMON /RM/ RM(999)
      COMMON /RMI/ RMI(999,16)
      INTEGER RMI
      COMMON /RSCA/ RSCA(999)
      COMMON /RTS/ RTS(999)
      COMMON /SA/ SA
      COMMON /SAT/ SAT(16)
      COMMON /TDSRU/ TDSRU(999)
      COMMON /TISQ/ TISQ(999)
      COMMON /TNB/ TNB(16)
      COMMON /TOTT/ TOTT(10)
      COMMON /UP/ UP(999)
      COMMON /USE/ USE(250,16)
      COMMON /USED/ USED(250)
      COMMON /WT/ WT(999)
```

```
      COMMON /XFPR/ XFPR
      COMMON /XITEMQ/ XITEMQ(999)
      COMMON /XUC/ XUC
      COMMON /YRSQ/ YRSQ(999)
      DIMENSION DINFB(999,16)
      DIMENSION DINFD(999)
      DIMENSION DNHNFB(999,16)
      DIMENSION DNHNFD(999)
      REAL NXXX2
      DIMENSION RNHMH(999,16)
C
C
      DO 520 IXXX1=1,MXI
        I=INO(IXXX1)
        TDSRU(I)=0.
        IF(.NOT.(NHI(I).NE.0)) GO TO 510
          IF(.NOT.(LRU(I).EQ.0.AND.LRU(NHI(I)).EQ.1)) GO TO 500
            DO 260 NS=1,MXNS
              IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 210
                DNHNFB(I,NS)=(FAIL(NHI(I),NS)-FAIL(I,NS))*(1.+FPR(NHI(I)
     +            ))*OSTC
                DINFB(I,NS)=FAIL(I,NS)*(1.+FPR(NHI(I)))*OSTC
  210         CONTINUE
              IF(.NOT.(BTYPE(NS).NE.3)) GO TO 240
                TEM01=0.
                DO 220 B=1,MXNS
                  IF(.NOT.(NHB(B).EQ.NS)) GO TO 220
                  TEM01=TEM01+AMAX1((FAIL(NHI(I),B)-FAIL(I,B)),0.)*
     +              NBC(B)
  220           CONTINUE
                DNHNFB(I,NS)=AMAX1((FAIL(NHI(I),NS)-FAIL(I,NS)),0.)*
     +            ((FPR(NHI(I))*XFPR+RTS(NHI(I)))*BRCT+(NRTS(NHI(I))+
     +            COND(NHI(I)))*OST(LO(NS)))+CIMF(NS)*TEM01*((RTS(NHI(I)
     +            )+FPR(NHI(I))*XFPR)*CRCT+(NRTS(NHI(I))+COND(NHI(I)))*
     +            (OST(LO(NS))+U(FPR(NHI(I))*XFPR)*CRCT))
                TEM02=0.
                DO 230 B=1,MXNS
                  IF(.NOT.(NHB(B).EQ.NS)) GO TO 230
                  TEM02=TEM02+FAIL(I,B)*NBC(B)
  230           CONTINUE
                DINFB(I,NS)=FAIL(I,NS)*((FPR(NHI(I))*XFPR+RTS(I))*BRCT+
     +            (NRTS(I)+COND(I))*OST(LO(NS)))+CIMF(NS)*TEM02*((RTS(I)
     +            +FPR(NHI(I))*XFPR)*CRCT+(NRTS(I)+COND(I))*(OST(LO(NS))
     +            +U(FPR(NHI(I))*XFPR)*CRCT))
  240         CONTINUE
              RNHMH(I,NS)=0.
              IF(.NOT.(FAIL(NHI(I),NS).GT.0.001)) GO TO 250
```

```
            RNHMH(I,NS)=AMIN1(FAIL(I,NS)/FAIL(NHI(I),NS),1.)*
     +        ERHBI(NHI(I),NS)
250       CONTINUE
260     CONTINUE
        TEM03=0.
        DO 270 NS=1,MXNS
          TEM03=TEM03+AMAX1((FAIL(NHI(I),NS)-FAIL(I,NS)),0.)*TNB(NS)
     +      *NRTS(NHI(I))*DRCT(LO(NS))
270     CONTINUE
        DNHNFD(I)=TEM03
        TEM04=0.
        DO 280 NS=1,MXNS
          TEM04=TEM04+FAIL(I,NS)*TNB(NS)*NRTS(I)*DRCT(LO(NS))
280     CONTINUE
        DINFD(I)=TEM04
        TEM05=0.
        DO 290 NP=1,MXNP
          TEM05=TEM05+TOTT(NP)*NITEM(I,NP)
290     CONTINUE
        TEM06=0.
        DO 300 NS=1,MXNS
          TEM06=TEM06+TNB(NS)*F(DINFB(I,NS))
300     CONTINUE
        TEM07=0.
        DO 310 NS=1,MXNS
          TEM07=TEM07+AMIN1(FAIL(I,NS),FAIL(NHI(I),NS))*TNB(NS)
310     CONTINUE
        XITEMQ(I)=TEM05+TEM06+F(DINFD(I))-TISQ(I)+12.*NRUC*TEM07*
     +    (1.-COND(NHI(I)))-NRUC*YRSQ(I)
        TEM08=0.
        DO 320 NS=1,MXNS
          TEM08=TEM08+TNB(NS)*F(DNHNFB(I,NS))
320     CONTINUE
        TEM09=0.
        DO 330 NS=1,MXNS
          TEM09=TEM09+AMAX1((FAIL(NHI(I),NS)-FAIL(I,NS)),0.)*TNB(NS)
330     CONTINUE
        XITEMQ(NHI(I))=TEM08+F(DNHNFD(I))-TISQ(NHI(I))+12.*NRUC*
     +    TEM09*(1.-COND(NHI(I)))-NRUC*YRSQ(NHI(I))
        TEM10=0.
        DO 340 NS=1,MXNS
          TEM10=TEM10+TNB(NS)*F(DNHNFB(I,NS))
340     CONTINUE
        TEM11=0.
        DO 350 NS=1,MXNS
          TEM11=TEM11+TNB(NS)*F(DINFB(I,NS))
350     CONTINUE
```

```
      TEM12=0.
      DO 360 NS=1,MXNS
        TEM12=TEM12+AMAX1((FAIL(NHI(I),NS)-FAIL(I,NS)),0.)*TNB(NS)
360   CONTINUE
      TEM13=0.
      DO 370 NS=1,MXNS
        TEM13=TEM13+AMIN1(FAIL(I,NS),FAIL(NHI(I),NS))*TNB(NS)
370   CONTINUE
      TDSRUA=(TEM10+F(DNHNFD(I)))*(UP(NHI(I))-UP(I))*XLEARN(NHI(I)
     +  )*XUC-ISCA(NHI(I))+(TEM11+F(DINFD(I)))*UP(I)*XLEARN(I)*
     +  XUC-ISCA(I)+(NRUC*XLEARN(NHI(I))+(PIUP-NRUC))*12.*TEM12*
     +  (COND(NHI(I))+(1.-COND(NHI(I)))*RM(NHI(I)))*(UP(NHI(I))-
     +  UP(I))*XUC-RSCA(NHI(I))+(NRUC*XLEARN(I)+(PIUP-NRUC))*12.*
     +  TEM13*(1.-COND(NHI(I)))*(COND(I)+(1.-COND(I))*RM(I))*UP(I)
     +  *XUC-RSCA(I)
      TEM14=0.
      DO 380 NS=1,MXNS
        TEM14=TEM14+AMAX1((FAIL(NHI(I),NS)-FAIL(I,NS)),0.)*TNB(NS)
     +    *(((1.+FPR(NHI(I))*XFPR)*BCMH(NHI(I))+RTS(NHI(I))*
     +    BMH(NHI(I)))*BMF*BLR+NRTS(NHI(I))*(DMH(NHI(I))*DMF*DLR+
     +    2.*CPPD(LO(NS))*(WT(NHI(I))-WT(I)))+COND(NHI(I))*
     +    CPPD(LO(NS))*(WT(NHI(I))-WT(I))+SAT(NS)*(1.+FPR(NHI(I))*
     +    XFPR)*2.*CPPC*(WT(NHI(I))-WT(I)))
380   CONTINUE
      TEM15=0.
      DO 390 NS=1,MXNS
        TEM15=TEM15+AMIN1(FAIL(NHI(I),NS),FAIL(I,NS))*TNB(NS)*
     +    (((1.+FPR(NHI(I))*XFPR)*BCMH(I)+RTS(I)*BMH(I))*BMF*BLR+
     +    NRTS(I)*(DMH(I)*DMF*DLR+2.*CPPD(LO(NS))*WT(I))+COND(I)*
     +    CPPD(LO(NS))*WT(I)+SAT(NS)*(1.+FPR(NHI(I))*XFPR)*2.*
     +    CPPC*WT(I))
390   CONTINUE
      TDSRUB=12.*PIUP*TEM14-OFMCA(NHI(I))+12.*PIUP*TEM15-OFMCA(I)
      NXXX1=NRM(NHI(I))
      TDSRUC=0.
      IF(.NOT.(NXXX1.GT.0)) GO TO 470
        DO 450 IRMT=1,MXIRMT
          IF(.NOT.(IRMT.LE.NXXX1)) GO TO 460
          IF(.NOT.(IRMIN(NHI(I),IRMT).EQ.
     +      RMI(NHI(I),NS))) GO TO 440
            NXXX2=NJA(NHI(I),IRMT)
            IF(.NOT.(NXXX2.GT.0)) GO TO 430
              DO 410 LT=1,MXLT
                IF(.NOT.(LT.LE.NXXX2)) GO TO 420
                L=A(NHI(I),IRMT,LT)
                DO 400 NS=1,MXNS
                TDSRUC=TDSRUC+U(QSA(NHI(I),IRMT,LT)-
```

```
     +                  AINT(QSA(NHI(I),IRMT,LT)/100.)*100.)*TNB(NS)*
     +                  (USE(L,NS)*RNHMH(I,NS)*ISET(L,NS)/BAA+USED(L)*
     +                  AMIN1(FAIL(I,NS),FAIL(NHI(I),NS))*NRTS(NHI(I))*
     +                  DMH(NHI(I))*DMF*ISETD(L)/DAA)*CSE(L)*(1.+PIUP*
     +                  MSE(L))
  400               CONTINUE
  410             CONTINUE
  420             CONTINUE
  430           CONTINUE
  440         CONTINUE
  450       CONTINUE
  460       CONTINUE
            TDSRUC=-1.*TDSRUC
  470     CONTINUE
          TEM16=0.
          DO 480 NS=1,MXNS
            TEM16=TEM16+U(FAIL(I,NS))*SAT(NS)*TNB(NS)
  480     CONTINUE
          TDSRUD=PIUP*SA*TEM16
          TDSRU(I)=(TDSRUA+TDSRUB+TDSRUC+TDSRUD)/1000000.
          IF(.NOT.(TDSRU(I).GT.-0.000001)) GO TO 490
            TDSRU(I)=0.
  490     CONTINUE
  500   CONTINUE
  510 CONTINUE
  520 CONTINUE
C
      DO 999 IXXX=1,MXI
        IDSRU (IXXX)=INO   (IXXX)
  999 CONTINUE
      LD=LDSRU
      IF (PRNTXX.NE.0) LD=MAX0(LD,LDERV )
      CALL TDSORT(TDSRU ,IDSRU ,LD,MXI   )
C
      RETURN
      END
```

```
      SUBROUTINE DXMIL
C                                                          800827 112702262
C*****************************************************************************
C*  COMPUTES GLOBAL SENSITIVITY WITH RESPECT TO                              *
C*  MOD/I LABOR HOURS                                                        *
C*****************************************************************************
C
      COMMON /FINC/ FINC
      COMMON /FR/ FR(3,10)
      COMMON /IA/ IA
      COMMON /LDERV/ LDERV
      COMMON /M/ M
      COMMON /MILR/ MILR(3)
      REAL MILR
      COMMON /MIMH/ MIMH(4,3,10)
      REAL MIMH
      COMMON /MXM/ MXM
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NIA/ NIA
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /TDMIL/ TDMIL
      COMMON /TDXMIL/ TDXMIL
      COMMON /TNB/ TNB(16)
      COMMON /XMIL/ XMIL
C
C
      TEM04=0.
      DO 240 NP=1,MXNP
        TEM01=0.
        DO 210 NS=1,MXNS
          TEM01=TEM01+TNB(NS)*NPLT(NP,NS)
  210   CONTINUE
        TEM03=0.
        DO 230 M=1,MXM
          TEM02=0.
          DO 220 IA=1,NIA
            TEM02=TEM02+MIMH(IA,M,NP)*XMIL
  220     CONTINUE
          TEM03=TEM03+FR(M,NP)*MILR(M)*TEM02
  230   CONTINUE
        TEM04=TEM04+TEM01*TEM03/1000000.
  240 CONTINUE
      TDMIL=TEM04
```

```
      TDXMIL=FINC*TDMIL
C
      RETURN
      END
```

```
      SUBROUTINE OTAB1
C                                                                      800827 112707950
C*********************************************************************************
C*  PRINTS A SUMMARY BY TOP-LEVEL                                                *
C*  COST ELEMENTS                                                                *
C*  SSS MOD LCR - 28 MAY 80                                                      *
C*********************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FSEDC/ FSEDC
      COMMON /IIMC/ IIMC
      REAL IIMC
      COMMON /ISC/ ISC
      REAL ISC
      COMMON /MIC/ MIC
      REAL MIC
      COMMON /MTRC/ MTRC
      REAL MTRC
      COMMON /OC/ OC
      COMMON /OFMC/ OFMC
      COMMON /ONMC/ ONMC
      COMMON /RSC/ RSC
      COMMON /SEDC/ SEDC
      COMMON /SEPC/ SEPC
      COMMON /STDC/ STDC
      COMMON /TERMH/ TERMH
      COMMON /TERMI/ TERMI
      COMMON /TSEC/ TSEC
    1 FORMAT(1H1,15X,50HOUTPUT TABLE 1: SUMMARY BY TOP-LEVEL COST ELEMEN
     +TS/24X,33H(IN MILLIONS OF CONSTANT DOLLARS)//8X,12HPROGRAM COST,5X
     +,11HDEVELOPMENT,3X,10HPRODUCTION,4X,7HSUPPORT,12X,5HTOTAL//)
    2 FORMAT(2X,20HFULL SCALE ENG. DEVT,5X,F6.2,10X,F4.2,8X,F4.2,12X,F6.
     +2)
    3 FORMAT(2X,15HP.M.E.:HARDWARE,12X,F4.2,8X,F6.2,8X,F4.2,12X,F6.2)
    4 FORMAT(9X,11HINTEGRATION,9X,F4.2,8X,F6.2,8X,F4.2,12X,F6.2)
    5 FORMAT(2X,10HOPERATIONS,17X,F4.2,10X,F4.2,6X,F6.2,12X,F6.2)
    6 FORMAT(2X,16HMOD/INSTALLATION,11X,F4.2,8X,F6.2,8X,F4.2,12X,F6.2)
    7 FORMAT(2X,17HSPARES:INVESTMENT,10X,F4.2,8X,F6.2,8X,F4.2,12X,F6.2)
    8 FORMAT(9X,11HREPLACEMENT,9X,F4.2,10X,F4.2,6X,F6.2,12X,F6.2)
    9 FORMAT(2X,17HSUPPORT EQUIPMENT,8X,F6.2,8X,F6.2,8X,F4.2,12X,F6.2)
   10 FORMAT(2X,12HON EQUIPMENT,15X,F4.2,10X,F4.2,6X,F6.2,12X,F6.2)
   11 FORMAT(2X,13HOFF EQUIPMENT,14X,F4.2,10X,F4.2,6X,F6.2,12X,F6.2)
   12 FORMAT(2X,8HTRAINING,19X,F4.2,10X,F4.2,6X,F6.2,12X,F6.2)
   13 FORMAT(2X,20HINVENTORY MANAGEMENT,7X,F4.2,10X,F4.2,6X,F6.2,12X,F6.
     +2)
   14 FORMAT(2X,16HTECHNICAL ORDERS,11X,F4.2,8X,F6.2,8X,F4.2,12X,F6.2/)
```

```
   15 FORMAT(12X,10HTOTAL COST,5X,F6.2,8X,F6.2,6X,F6.2,10X,F8.2)
C
C
C
      TEMP1=TERMH/1000000.
      TEMP2=TERMI/1000000.
      TEMP3=OC/1000000.
      TEMP4=MIC/1000000.
      TEMP5=ISC/1000000.
      TEMP6=RSC/1000000.
      TEMP7=SEDC/1000000.
      TEMP8=SEPC/1000000.
      TEMP9=TSEC/1000000.
      TEMPA=ONMC/1000000.
      TEMPB=OFMC/1000000.
      TEMPC=MTRC/1000000.
      TEMPD=IIMC/1000000.
      TEMPE=STDC/1000000.
      TEMPF=FSEDC/1000000.
      T1=TEMP1+TEMP2+TEMP4+TEMP5+TEMP8+TEMPE
      T2=TEMP3+TEMP6+TEMPA+TEMPB+TEMPC+TEMPD
      T4=TEMPF+TEMP7
      T3=T4+T1+T2
      ZERO=0.00
      IF(PRNTXX.NE.0) WRITE( 7, 1)
      IF(PRNTXX.NE.1) WRITE(06, 1)
      IF(PRNTXX.NE.0) WRITE( 7, 2) TEMPF,ZERO,ZERO,TEMPF
      IF(PRNTXX.NE.1) WRITE(06, 2) TEMPF,ZERO,ZERO,TEMPF
      IF(PRNTXX.NE.0) WRITE( 7, 3) ZERO,TEMP1,ZERO,TEMP1
      IF(PRNTXX.NE.1) WRITE(06, 3) ZERO,TEMP1,ZERO,TEMP1
      IF(PRNTXX.NE.0) WRITE( 7, 4) ZERO,TEMP2,ZERO,TEMP2
      IF(PRNTXX.NE.1) WRITE(06, 4) ZERO,TEMP2,ZERO,TEMP2
      IF(PRNTXX.NE.0) WRITE( 7, 5) ZERO,ZERO,TEMP3,TEMP3
      IF(PRNTXX.NE.1) WRITE(06, 5) ZERO,ZERO,TEMP3,TEMP3
      IF(PRNTXX.NE.0) WRITE( 7, 6) ZERO,TEMP4,ZERO,TEMP4
      IF(PRNTXX.NE.1) WRITE(06, 6) ZERO,TEMP4,ZERO,TEMP4
      IF(PRNTXX.NE.0) WRITE( 7, 7) ZERO,TEMP5,ZERO,TEMP5
      IF(PRNTXX.NE.1) WRITE(06, 7) ZERO,TEMP5,ZERO,TEMP5
      IF(PRNTXX.NE.0) WRITE( 7, 8) ZERO,ZERO,TEMP6,TEMP6
      IF(PRNTXX.NE.1) WRITE(06, 8) ZERO,ZERO,TEMP6,TEMP6
      IF(PRNTXX.NE.0) WRITE( 7, 9) TEMP7,TEMP8,ZERO,TEMP9
      IF(PRNTXX.NE.1) WRITE(06, 9) TEMP7,TEMP8,ZERO,TEMP9
      IF(PRNTXX.NE.0) WRITE( 7,10) ZERO,ZERO,TEMPA,TEMPA
      IF(PRNTXX.NE.1) WRITE(06,10) ZERO,ZERO,TEMPA,TEMPA
      IF(PRNTXX.NE.0) WRITE( 7,11) ZERO,ZERO,TEMPB,TEMPB
      IF(PRNTXX.NE.1) WRITE(06,11) ZERO,ZERO,TEMPB,TEMPB
      IF(PRNTXX.NE.0) WRITE( 7,12) ZERO,ZERO,TEMPC,TEMPC
```

```
      IF(PRNTXX.NE.1) WRITE(06,12) ZERO,ZERO,TEMPC,TEMPC
      IF(PRNTXX.NE.0) WRITE( 7,13) ZERO,ZERO,TEMPD,TEMPD
      IF(PRNTXX.NE.1) WRITE(06,13) ZERO,ZERO,TEMPD,TEMPD
      IF(PRNTXX.NE.0) WRITE( 7,14) ZERO,TEMPE,ZERO,TEMPE
      IF(PRNTXX.NE.1) WRITE(06,14) ZERO,TEMPE,ZERO,TEMPE
      IF(PRNTXX.NE.0) WRITE( 7,15) T4,T1,T2,T3
      IF(PRNTXX.NE.1) WRITE(06,15) T4,T1,T2,T3
C
      RETURN
      END
```

```
      SUBROUTINE OTAB2
C                                                              800827 112802322
C*****************************************************************************
C*  PRINTS PLATFORM MODIFICATION/INSTALLATION COSTS                           *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /AKIT/ AKIT(4,10)
      COMMON /FR/ FR(3,10)
      COMMON /IA/ IA
      COMMON /M/ M
      COMMON /MIFIX/ MIFIX(3,10)
      REAL MIFIX
      COMMON /MILR/ MILR(3)
      REAL MILR
      COMMON /MIMH/ MIMH(4,3,10)
      REAL MIMH
      COMMON /MXM/ MXM
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NIA/ NIA
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /PNOUN/ PNOUN(10,12)
      COMMON /TMIL/ TMIL
      COMMON /TNB/ TNB(16)
      COMMON /XMIL/ XMIL
    1 FORMAT(1H1/30X,56HOUTPUT TABLE 2: PLATFORM MODIFICATION/INSTALLATI
     +ON COSTS/37X,33H(IN MILLIONS OF CONSTANT DOLLARS)////30X,45H***REC
     +URRING MOD/I COST TOTALS BY PLATFORM***//26X,5HFIXED,22X,6HRETRO-,
     +3X,5HPRDC-,10X,1H*/3X,5HPLAT-,18X,5HPLAT.,4X,5HA-KIT,13X,3HFIT,6X,
     +4HTION,11X,1H*,1X,30HA-KIT PLUS LABOR COSTS BY AREA/3X,4HFORM,19X,
     +5HPREP/,4X,6HEQUIP-,3X,5HMOD/I,4X,5HMOD/I,4X,5HMOD/I,10X,1H*,1X,35
     +(1H-)/3X,5HINDEX,1X,13HPLATFORM NAME,4X,5HRSTR.,4X,4HMENT,5X,5HLAB
     +OR,4X,5HTOTAL,4X,5HTOTAL,4X,5HTOTAL,1X,1H*,1X,7HANTENNA,2X,8HELEC.
     .BOX,2X,7HCNTL.HD,2X,7HCABLING/3X,4H(NP)/)
    2 FORMAT(3X,I3,2X,12A1,3X,6(F8.3,1X),1X,F8.3,2X,F8.3,1X,F8.3,1X,F8.3
     +)
    3 FORMAT(/4X,18(1H-),1X,6(8(1H-),1X),1X,8(1H-),2X,8(1H-),1X,8(1H-),1
     .X,8(1H-)//5X,11HCOST TOTALS,6X,6(F9.3),1X,F9.3,1X,3F9.3)
C
C
C
C.....ONLY PRINT THIS TABLE IF OFF-LINE OUTPUT WAS REQUESTED
```

```
      IF(PRNTXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      T11=0.
      T12=0.
      TMIL=0.
      T14=0.
      T15=0.
      T16=0.
      T17=0.
      T18=0.
      T19=0.
      T20=0.
      DO 330 NP=1,MXNP
        TEM01=0.
        DO 210 NS=1,MXNS
          TEM01=TEM01+TNB(NS)*NPLT(NP,NS)
  210   CONTINUE
        TPLT=TEM01
        TEM02=0.
        DO 220 M=1,MXM
          TEM02=TEM02+FR(M,NP)*(MIFIX(M,NP)*1000.)
  220   CONTINUE
        T1=TPLT*TEM02/1000000.
        TEM03=0.
        DO 230 IA=1,NIA
          TEM03=TEM03+AKIT(IA,NP)
  230   CONTINUE
        T2=TPLT*TEM03/1000000.
        TEM05=0.
        DO 250 M=1,MXM
          TEM04=0.
          DO 240 IA=1,NIA
            TEM04=TEM04+MIMH(IA,M,NP)*XMIL
  240     CONTINUE
          TEM05=TEM05+FR(M,NP)*MILR(M)*TEM04
  250   CONTINUE
        T3=TPLT*TEM05/1000000.
        TEM06=0.
        DO 260 IA=1,NIA
          TEM06=TEM06+MIMH(IA,2,NP)*XMIL*MILR(2)+AKIT(IA,NP)
  260   CONTINUE
        TEM07=0.
        DO 270 IA=1,NIA
          TEM07=TEM07+MIMH(IA,3,NP)*XMIL*MILR(3)+AKIT(IA,NP)
  270   CONTINUE
        T4=TPLT*(FR(2,NP)*((MIFIX(2,NP)*1000.)+TEM06)+FR(3,NP)*
```

```
     +    ((MIFIX(3,NP)*1000.)+TEM07))/1000000.
          TEM08=0.
          DO 280 IA=1,NIA
            TEM08=TEM08+MIMH(IA,1,NP)*XMIL*MILR(1)+AKIT(IA,NP)
 280      CONTINUE
          T5=TPLT*FR(1,NP)*((MIFIX(1,NP)*1000.)+TEM08)/1000000.
          T6=T4+T5
          TEM09=0.
          DO 290 M=1,MXM
            TEM09=TEM09+FR(M,NP)*MIMH(1,M,NP)*XMIL*MILR(M)
 290      CONTINUE
          T7=TPLT*(TEM09+AKIT(1,NP))/1000000.
          TEM10=0.
          DO 300 M=1,MXM
            TEM10=TEM10+FR(M,NP)*MIMH(2,M,NP)*XMIL*MILR(M)
 300      CONTINUE
          T8=TPLT*(TEM10+AKIT(2,NP))/1000000.
          TEM11=0.
          DO 310 M=1,MXM
            TEM11=TEM11+FR(M,NP)*MIMH(3,M,NP)*XMIL*MILR(M)
 310      CONTINUE
          T9=TPLT*(TEM11+AKIT(3,NP))/1000000.
          TEM12=0.
          DO 320 M=1,MXM
            TEM12=TEM12+FR(M,NP)*MIMH(4,M,NP)*XMIL*MILR(M)
 320      CONTINUE
          T10=TPLT*(TEM12+AKIT(4,NP))/1000000.
          WRITE( 7, 2) NP,(PNOUN(NP,K1),K1=1,12),T1,T2,T3,T4,T5,T6,T7,T8,
     +      T9,T10
          T11=T11+T1
          T12=T12+T2
          TMIL=TMIL+T3
          T14=T14+T4
          T15=T15+T5
          T16=T16+T6
          T17=T17+T7
          T18=T18+T8
          T19=T19+T9
          T20=T20+T10
 330    CONTINUE
        WRITE( 7, 3) T11,T12,TMIL,T14,T15,T16,T17,T18,T19,T20
C
        RETURN
        END
```

```
      SUBROUTINE OTAB3A
C                                                                  800827 112846709
C*****************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                                  *
C*  PRINTS OPERATION AND LOGISTICS SUPPORT                                   *
C*  COST ELEMENTS - PART 1                                                   *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /AFC/ AFC
      COMMON /BAFC/ BAFC(6)
      COMMON /BISC/ BISC(6)
      COMMON /BOFMC/ BOFMC(6)
      COMMON /BOLC/ BOLC(6)
      COMMON /BONMC/ BONMC(6)
      COMMON /BRSC/ BRSC(6)
      COMMON /ISC/ ISC
      REAL ISC
      COMMON /ISCB/ ISCB
      REAL ISCB
      COMMON /ISCD/ ISCD
      REAL ISCD
      COMMON /OFMC/ OFMC
      COMMON /OFMCB/ OFMCB
      COMMON /OFMCD/ OFMCD
      COMMON /OLC/ OLC
      COMMON /ONMC/ ONMC
      COMMON /RSC/ RSC
    1 FORMAT(1H1/35X,62HOUTPUT TABLE 3:  OPERATION AND LOGISTICS SUPPORT
     + COST ELEMENTS/50X,33H(IN MILLIONS OF CONSTANT DOLLARS)//24X,1H|,2
     +7X,57H| INDEP   CIMF    SATEL   BASE  | AIR     GROUND | DEPOT/11
     +X,98HCOST ELEMENT | INITIAL  RECURRING  TOTAL | BASES   BASES   BA
     +SES   TOTAL | BASES   BASES  |  TOTAL/24X,1H|,27X,1H|,31X,1H|,16X,
     +1H|/10X,110(1H-)/24X,1H|,27X,1H|,31X,1H|,16X,1H|)
    2 FORMAT(7X,18HOPERATIONS LABOR |,9X,2(F6.2,3X),1H|,3(F6.2,2X),F6.2,
     +1X,1H|,1X,2(F6.2,1X),1X,1H|)
    3 FORMAT(7X,10HADDED FUEL,7X,1H|,9X,2(F6.2,3X),1H|,3(F6.2,2X),F6.2,1
     +X,1H|,1X,2(F6.2,1X),1X,1H|)
    4 FORMAT(7X,18HINITIAL SPARES   |,1X,F6.2,11X,F6.2,3X,1H|,3(F6.2,2X)
     +,F6.2,1X,1H|,1X,2(F6.2,1X),1X,1H|,1X,F6.2)
    5 FORMAT(7X,18HREPLACE. SPARES  |,9X,2(F6.2,3X),1H|,3(F6.2,2X),F6.2,
     +1X,1H|,1X,2(F6.2,1X),1X,1H|)
    6 FORMAT(7X,18HON-EQUIP. MAINT. |,9X,2(F6.2,3X),1H|,3(F6.2,2X),F6.2,
     +1X,1H|,1X,2(F6.2,1X),1X,1H|)
    7 FORMAT(7X,18HOFF-EQUIP. MAINT.|,9X,2(F6.2,3X),1H|,3(F6.2,2X),F6.2,
     +1X,1H|,1X,2(F6.2,1X),1X,1H|,1X,F6.2)
```

```
C
C
C
C.....ONLY PRINT THIS TABLE IF OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      T1=OLC/1000000.
      T2=BOLC(1)/1000000.
      T3=BOLC(2)/1000000.
      T4=BOLC(3)/1000000.
      T5=BOLC(4)/1000000.
      T6=BOLC(5)/1000000.
      T7=BOLC(6)/1000000.
      WRITE( 7, 2) T1,T1,T2,T3,T4,T1,T5,T6
      T1=AFC/1000000.
      T2=BAFC(1)/1000000.
      T3=BAFC(2)/1000000.
      T4=BAFC(3)/1000000.
      T5=BAFC(4)/1000000.
      T6=BAFC(5)/1000000.
      T7=BAFC(6)/1000000.
      WRITE( 7, 3) T1,T1,T2,T3,T4,T1,T5,T6
      T1=ISC/1000000.
      T2=BISC(1)/1000000.
      T3=BISC(2)/1000000.
      T4=BISC(3)/1000000.
      T5=ISCB/1000000.
      T6=BISC(4)/1000000.
      T7=BISC(5)/1000000.
      T8=BISC(6)/1000000.
      T9=ISCD/1000000.
      WRITE( 7, 4) T1,T1,T2,T3,T4,T5,T6,T7,T9
      T1=RSC/1000000.
      T2=BRSC(1)/1000000.
      T3=BRSC(2)/1000000.
      T4=BRSC(3)/1000000.
      T5=BRSC(4)/1000000.
      T6=BRSC(5)/1000000.
      T7=BRSC(6)/1000000.
      WRITE( 7, 5) T1,T1,T2,T3,T4,T1,T5,T6
      T1=ONMC/1000000.
      T2=BONMC(1)/1000000.
      T3=BONMC(2)/1000000.
      T4=BONMC(3)/1000000.
      T5=BONMC(4)/1000000.
      T6=BONMC(5)/1000000.
```

```
      T7=BONMC(6)/1000000.
      WRITE( 7, 6) T1,T1,T2,T3,T4,T1,T5,T6
      T1=OFMC/1000000.
      T2=BOFMC(1)/1000000.
      T3=BOFMC(2)/1000000.
      T4=BOFMC(3)/1000000.
      T5=OFMCB/1000000.
      T6=BOFMC(4)/1000000.
      T7=BOFMC(5)/1000000.
      T8=BOFMC(6)/1000000.
      T9=OFMCD/1000000.
      WRITE( 7, 7) T1,T1,T2,T3,T4,T5,T6,T7,T9
C
      RETURN
      END
```

```
      SUBROUTINE OTAB3B
C                                                                  800827 112923779
C*****************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                                  *
C*  PRINTS OPERATION AND LOGISTICS SUPPORT                                   *
C*  COST ELEMENTS - PART 2                                                   *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /AFC/ AFC
      COMMON /BAFC/ BAFC(6)
      COMMON /BIIMC/ BIIMC(6)
      COMMON /BISC/ BISC(6)
      COMMON /BMTRC/ BMTRC
      COMMON /BOFMC/ BOFMC(6)
      COMMON /BOLC/ BOLC(6)
      COMMON /BONMC/ BONMC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BRSC/ BRSC(6)
      COMMON /BSECC/ BSECC(6)
      COMMON /BSECP/ BSECP(6)
      COMMON /BTCDI/ BTCDI
      COMMON /BTDC/ BTDC(16)
      COMMON /BTDCA/ BTDCA
      COMMON /BTDCC/ BTDCC
      COMMON /BTDCG/ BTDCG
      COMMON /BTDCI/ BTDCI
      COMMON /BTDCM/ BTDCM
      COMMON /BTDCS/ BTDCS
      COMMON /BTDCT/ BTDCT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /BXTRC/ BXTRC
      COMMON /DMTRC/ DMTRC
      COMMON /DTDC/ DTDC
      COMMON /IIMC/ IIMC
      REAL IIMC
      COMMON /IIMCB/ IIMCB
      REAL IIMCB
      COMMON /IIMCD/ IIMCD
      REAL IIMCD
      COMMON /IIMCI/ IIMCI
      REAL IIMCI
      COMMON /IIMCR/ IIMCR
      REAL IIMCR
```

```
      COMMON /IMTRC/ IMTRC
      REAL IMTRC
      COMMON /ISC/ ISC
      REAL ISC
      COMMON /ISCB/ ISCB
      REAL ISCB
      COMMON /ISCD/ ISCD
      REAL ISCD
      COMMON /MTRC/ MTRC
      REAL MTRC
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /OFMC/ OFMC
      COMMON /OFMCB/ OFMCB
      COMMON /OFMCD/ OFMCD
      COMMON /OLC/ OLC
      COMMON /ONMC/ ONMC
      COMMON /RMTRC/ RMTRC
      COMMON /RSC/ RSC
      COMMON /SECBC/ SECBC
      COMMON /SECBP/ SECBP
      COMMON /SECC/ SECC
      COMMON /SECDC/ SECDC
      COMMON /SECDP/ SECDP
      COMMON /SECIC/ SECIC
      COMMON /SECIP/ SECIP
      COMMON /SECP/ SECP
      COMMON /SECRC/ SECRC
      COMMON /SECRP/ SECRP
      COMMON /STDC/ STDC
      COMMON /STDCI/ STDCI
      COMMON /STDCR/ STDCR
      COMMON /TNB/ TNB(16)
    1 FORMAT(7X,18HSUPPORT EQUIPMENT|,27X,1H|,31X,1H|,16X,1H|)
    2 FORMAT(7X,18H   COMMON         |,1X,F6.2,2X,2(F6.2,3X),1H|,3(F6.2,2
     +X),F6.2,1X,1H|,1X,2(F6.2,1X),1X,1H|,1X,F6.2)
    3 FORMAT(7X,18H   PECULIAR       |,1X,F6.2,2X,2(F6.2,3X),1H|,3(F6.2,2
     +X),F6.2,1X,1H|,1X,2(F6.2,1X),1X,1H|,1X,F6.2)
    4 FORMAT(7X,18HINVENTORY MANAG. |,1X,F6.2,2X,2(F6.2,3X),1H|,3(F6.2,2
     +X),F6.2,1X,1H|,1X,2(F6.2,1X),1X,1H|,1X,F6.2)
    5 FORMAT(7X,18HMAINT. TRAINING* |,1X,F6.2,2X,2(F6.2,3X),1H|,3(6H  --
     +  ,2X),F6.2,1X,1H|,1X,2(6H  --  ,1X),1X,1H|,1X,F6.2)
    6 FORMAT(7X,18HTECH. DATA        |,1X,F6.2,2X,2(F6.2,3X),1H|,3(F6.2,2
     +X),F6.2,1X,1H|,1X,2(F6.2,1X),1X,1H|,1X,F6.2)
    7 FORMAT(10X,110(1H-))
    8 FORMAT(24X,1H|,27X,1H|,31X,1H|,16X,1H|/12X,6HTOTALS,6X,1H|,1X,F6.2
     +,2X,2(F6.2,3X),1H|,3(F6.2,2X),F6.2,1X,1H|,1X,F6.2,1X,F6.2,2X,1H|,1
```

```
     +X,F6.2///)
    9 FORMAT(2X,1H(,1H*,43H MAINT. TRAINING IS ALLOCATED TO BASE TOTAL,
     +63H AND DEPOT TOTAL BUT IS NOT FURTHER ALLOCATED AMONG BASE TYPES,
     +1H)//)
   10 FORMAT(24X,16HNUMBER OF BASES:/24X,16(1H-)//28X,9HINDEP. = ,F5.0,9
     +X,15HAIR BASES    = ,F5.0//28X,9HCIMF    = ,F5.0,9X,15HGROUND BASES
     + = ,F5.0/66X,5(1H-)/28X,9HSATEL. = ,F5.0,9X,15HTOTAL        = ,F5.
     +0/37X,5(1H-)/28X,9HTOTAL  = ,F5.0)
C
C
C
C.....ONLY PRINT THIS TABLE IF OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      T1=SECIC/1000000.
      T2=SECRC/1000000.
      T3=SECC/1000000.
      T4=BSECC(1)/1000000.
      T5=BSECC(2)/1000000.
      T6=BSECC(3)/1000000.
      T7=SECBC/1000000.
      T8=BSECC(4)/1000000.
      T9=BSECC(5)/1000000.
      T10=BSECC(6)/1000000.
      T11=SECDC/1000000.
      WRITE( 7, 2) T1,T2,T3,T4,T5,T6,T7,T8,T9,T11
      T1=SECIP/1000000.
      T2=SECRP/1000000.
      T3=SECP/1000000.
      T4=BSECP(1)/1000000.
      T5=BSECP(2)/1000000.
      T6=BSECP(3)/1000000.
      T7=SECBP/1000000.
      T8=BSECP(4)/1000000.
      T9=BSECP(5)/1000000.
      T10=BSECP(6)/1000000.
      T11=SECDP/1000000.
      WRITE( 7, 3) T1,T2,T3,T4,T5,T6,T7,T8,T9,T11
      T1=IIMCI/1000000.
      T2=IIMCR/1000000.
      T3=IIMC/1000000.
      T4=BIIMC(1)/1000000.
      T5=BIIMC(2)/1000000.
      T6=BIIMC(3)/1000000.
      T7=IIMCB/1000000.
      T8=BIIMC(4)/1000000.
```

```
      T9=BIIMC(5)/1000000.
      T10=BIIMC(6)/1000000.
      T11=IIMCD/1000000.
      WRITE( 7, 4) T1,T2,T3,T4,T5,T6,T7,T8,T9,T11
      T1=IMTRC/1000000.
      T2=RMTRC/1000000.
      T3=MTRC/1000000.
      T7=BMTRC/1000000.
      T11=DMTRC/1000000.
      WRITE( 7, 5) T1,T2,T3,T7,T11
      TEM01=0.
      DO 210 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.1)) GO TO 210
        TEM01=TEM01+BTDC(NS)
  210 CONTINUE
      BTDCI=TEM01
      TEM02=0.
      DO 220 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 220
        TEM02=TEM02+BTDC(NS)
  220 CONTINUE
      BTDCC=TEM02
      TEM03=0.
      DO 230 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 230
        TEM03=TEM03+BTDC(NS)
  230 CONTINUE
      BTDCS=TEM03
      TEM04=0.
      DO 240 NS=1,MXNS
        TEM04=TEM04+BTDC(NS)
  240 CONTINUE
      BTDCT=TEM04
      TEM05=0.
      DO 250 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.1)) GO TO 250
        TEM05=TEM05+BTDC(NS)
  250 CONTINUE
      BTDCA=TEM05
      TEM06=0.
      DO 260 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.2)) GO TO 260
        TEM06=TEM06+BTDC(NS)
  260 CONTINUE
      BTDCG=TEM06
      TEM07=0.
      DO 270 NS=1,MXNS
```

```
      IF(.NOT.(BPLAT(NS).EQ.3)) GO TO 270
      TEM07=TEM07+BTDC(NS)
270 CONTINUE
    BTDCM=TEM07
    DTDC=STDC-BTDCT
    T1=STDCI/1000000.
    T2=STDCR/1000000
    T3=STDC/1000000.
    T4=BTDCI/1000000.
    T5=BTDCC/1000000.
    T6=BTDCS/1000000.
    T7=BTDCT/1000000.
    T8=BTDCA/1000000.
    T9=BTDCG/1000000.
    T10=BTDCM/1000000.
    T11=DTDC/1000000.
    WRITE( 7, 6) T1,T2,T3,T4,T5,T6,T7,T8,T9,T11
    WRITE( 7, 7)
    TEMP1=(ISC+SECIC+SECIP+IMTRC+STDCI+IIMCI)/1000000.
    TEMP2=(OLC+AFC+RSC+ONMC+OFMC+SECRC+SECRP+RMTRC+STDCR+IIMCR)/
   +  1000000.
    TEMP3=(OLC+AFC+ISC+RSC+ONMC+OFMC+SECC+SECP+MTRC+STDC+IIMC)/
   +  1000000.
    TEMP4=(BOLC(1)+BAFC(1)+BISC(1)+BRSC(1)+BONMC(1)+BOFMC(1)+BSECC(1)+
   +  BSECP(1)+BIIMC(1)+BTCDI)/1000000.
    TEMP5=(BOLC(2)+BAFC(2)+BISC(2)+BRSC(2)+BONMC(2)+BOFMC(2)+BSECC(2)+
   +  BSECP(2)+BIIMC(2)+BTDCC)/1000000.
    TEMP6=(BOLC(3)+BAFC(3)+BISC(3)+BRSC(3)+BONMC(3)+BOFMC(3)+BSECC(3)+
   +  BSECP(3)+BIIMC(3)+BTDCS)/1000000.
    TEMP7=(OLC+AFC+ISCB+RSC+ONMC+OFMCB+SECBC+SECBP+IIMCB+BMTRC+BTDCT)/
   +  1000000.
    TEMP8=(BOLC(4)+BAFC(4)+BISC(4)+BRSC(4)+BONMC(4)+BOFMC(4)+BSECC(4)+
   +  BSECP(4)+BIIMC(4)+BTDCA)/1000000.
    TEMP9=(BOLC(5)+BAFC(5)+BISC(5)+BRSC(5)+BONMC(5)+BOFMC(5)+BSECC(5)+
   +  BSECP(5)+BIIMC(5)+BTDCG)/1000000.
    TEM10=(BOLC(6)+BAFC(6)+BISC(6)+BRSC(6)+BONMC(6)+BOFMC(6)+BSECC(6)+
   +  BSECP(6)+BIIMC(6)+BTDCM)/1000000.
    TEM11=(ISCD+OFMCD+SECDC+SECDP+IIMCD+DMTRC+DTDC)/1000000.
    WRITE( 7, 8) TEMP1,TEMP2,TEMP3,TEMP4,TEMP5,TEMP6,TEMP7,TEMP8,
   +  TEMP9,TEM11
    WRITE( 7, 9)
    TEM08=0.
    DO 280 NS=1,MXNS
      IF(.NOT.(BTYPE(NS).EQ.1)) GO TO 280
      TEM08=TEM08+TNB(NS)
280 CONTINUE
    TNIB=TEM08
```

```
      TEM09=0.
      DO 290 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 290
        TEM09=TEM09+TNB(NS)
  290 CONTINUE
      TNCB=TEM09
      TEM10=0.
      DO 300 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 300
        TEM10=TEM10+TNB(NS)
  300 CONTINUE
      TNSB=TEM10
      TEM11=0.
      DO 310 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.1)) GO TO 310
        TEM11=TEM11+TNB(NS)
  310 CONTINUE
      TNAB=TEM11
      TEM12=0.
      DO 320 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.2)) GO TO 320
        TEM12=TEM12+TNB(NS)
  320 CONTINUE
      TNGB=TEM12
      TEM13=0.
      DO 330 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.3)) GO TO 330
        TEM13=TEM13+TNB(NS)
  330 CONTINUE
      TNMB=TEM13
      TEMPA=TNIB+TNCB+TNSB
      TEMPB=TNAB+TNGB+TNMB
      WRITE( 7, 10) TNIB,TNAB,TNCB,TNGB,TNSB,TEMPB,TEMPA
C
      RETURN
      END
```

```
      SUBROUTINE OTAB3C
C                                                              800827 113046947
C*****************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                                  *
C*  PRINTS OPERATION AND LOGISTICS SUPPORT                                   *
C*  COST ELEMENTS - PART 3 - FOR TERMINAL OUTPUT ONLY                        *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /AFC/ AFC
      COMMON /BAFC/ BAFC(6)
      COMMON /BIIMC/ BIIMC(6)
      COMMON /BISC/ BISC(6)
      COMMON /BOFMC/ BOFMC(6)
      COMMON /BOLC/ BOLC(6)
      COMMON /BONMC/ BONMC(6)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BRSC/ BRSC(6)
      COMMON /BSECC/ BSECC(6)
      COMMON /BSECP/ BSECP(6)
      COMMON /BTDC/ BTDC(16)
      COMMON /BTDCA/ BTDCA
      COMMON /BTDCG/ BTDCG
      COMMON /BTDCM/ BTDCM
      COMMON /BTDCT/ BTDCT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /DMTRC/ DMTRC
      COMMON /DTDC/ DTDC
      COMMON /IIMC/ IIMC
      REAL IIMC
      COMMON /IIMCD/ IIMCD
      REAL IIMCD
      COMMON /IIMCI/ IIMCI
      REAL IIMCI
      COMMON /IIMCR/ IIMCR
      REAL IIMCR
      COMMON /IMTRC/ IMTRC
      REAL IMTRC
      COMMON /ISC/ ISC
      REAL ISC
      COMMON /ISCD/ ISCD
      REAL ISCD
      COMMON /MTRC/ MTRC
      REAL MTRC
```

```
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /OFMC/ OFMC
      COMMON /OFMCD/ OFMCD
      COMMON /OLC/ OLC
      COMMON /ONMC/ ONMC
      COMMON /RMTRC/ RMTRC
      COMMON /RSC/ RSC
      COMMON /SECC/ SECC
      COMMON /SECDC/ SECDC
      COMMON /SECDP/ SECDP
      COMMON /SECIC/ SECIC
      COMMON /SECIP/ SECIP
      COMMON /SECP/ SECP
      COMMON /SECRC/ SECRC
      COMMON /SECRP/ SECRP
      COMMON /STDC/ STDC
      COMMON /STDCI/ STDCI
      COMMON /STDCR/ STDCR
      COMMON /TNB/ TNB(16)
      REAL IT1
      REAL IT10
      REAL IT11
      REAL IT2
      REAL IT3
      REAL IT8
      REAL IT9
      REAL JT1
      REAL JT11
      REAL JT2
      REAL JT3
      REAL KT1
      REAL KT10
      REAL KT11
      REAL KT2
      REAL KT3
      REAL KT8
      REAL KT9
    1 FORMAT(1H1//9X,62HOUTPUT TABLE 3:  OPERATION AND LOGISTICS SUPPORT
     + COST ELEMENTS/23X,33H(IN MILLIONS OF CONSTANT DOLLARS)//18X,1H|,2
     +7X,25H| AIR     GROUND |  DEPOT/5X,66HCOST ELEMENT | INITIAL  RECU
     +RRING  TOTAL | BASES   BASES  |  TOTAL/18X,1H|,27X,1H|,16X,1H|/4X,
     +67(1H-)/18X,1H|,27X,1H|,16X,1H|)
    2 FORMAT(1X,18HOPERATIONS LABOR |,9X,2(F6.2,3X),1H|,1X,2(F6.2,1X),1X
     +,1H|)
    3 FORMAT(1X,10HADDED FUEL,7X,1H|,9X,2(F6.2,3X),1H|,1X,2(F6.2,1X),1X,
     +1H|)
```

```
    4 FORMAT(1X,13HINITIAL SPARES   |,1X,F6.2,11X,F6.2,3X,1H|,1X,2(F6.2,
     +1X),1X,1H|,1X,F6.2)
    5 FORMAT(1X,18HREPLACE. SPARES  |,9X,2(F6.2,3X),1H|,1X,2(F6.2,1X),1X
     +,1H|)
    6 FORMAT(1X,18HON-EQUIP. MAINT. |,9X,2(F6.2,3X),1H|,1X,2(F6.2,1X),1X
     +,1H|)
    7 FORMAT(1X,18HOFF-EQUIP. MAINT.|,9X,2(F6.2,3X),1H|,1X,2(F6.2,1X),1X
     +,1H|,1X,F6.2)
    8 FORMAT(1X,18HSUPPORT EQUIPMENT|,27X,1H|,16X,1H|)
    9 FORMAT(1X,18H   COMMON        |,1X,F6.2,2X,2(F6.2,3X),1H|,1X,2(F6.
     +2,1X),1X,1H|,1X,F6.2)
   10 FORMAT(1X,18H   PECULIAR      |,1X,F6.2,2X,2(F6.2,3X),1H|,1X,2(F6.
     +2,1X),1X,1H|,1X,F6.2)
   11 FORMAT(1X,18HINVENTORY MANAG. |,1X,F6.2,2X,2(F6.2,3X),1H|,1X,2(F6.
     +2,1X),1X,1H|,1X,F6.2)
   12 FORMAT(1X,18HMAINT. TRAINING  |,1X,F6.2,2X,2(F6.2,3X),1H|,16X,1H|,
     +1X,F6.2)
   13 FORMAT(1X,18HTECH. DATA       |,1X,F6.2,2X,2(F6.2,3X),1H|,1X,2(F6.
     +2,1X),1X,1H|,1X,F6.2)
   14 FORMAT(4X,74(1H-))
   15 FORMAT(6X,6HTOTALS,6X,1H|,1X,F6.2,2X,2(F6.2,3X),1H|,1X,2(F6.2,1X),
     +1X,1H|,1X,F6.2///)
   16 FORMAT(24X,16HNUMBER OF BASES:/24X,16(1H-)//28X,9HINDEP. = ,F5.0,9
     +X,15HAIR BASES    = ,F5.0//28X,9HCIMF   = ,F5.0,9X,15HGROUND BASES
     + = ,F5.0/66X,5(1H-)/28X,9HSATEL. = ,F5.0,9X,15HTOTAL       = ,F5.
     +0/37X,5(1H-)/28X,9HTOTAL  = ,F5.0)
C
C
C
      IF(PRNTXX.NE.1) WRITE(06, 1)
      AT1=OLC/1000000.
      AT5=BOLC(4)/1000000.
      AT6=BOLC(5)/1000000.
      AT7=BOLC(6)/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 2) AT1,AT1,AT5,AT6
      BT1=AFC/1000000.
      BT5=BAFC(4)/1000000.
      BT6=BAFC(5)/1000000.
      BT7=BAFC(6)/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 3) BT1,BT1,BT5,BT6
      CT1=ISC/1000000.
      CT6=BISC(4)/1000000.
      CT7=BISC(5)/1000000.
      CT8=BISC(6)/1000000.
      CT9=ISCD/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 4) CT1,CT1,CT6,CT7,CT9
      DT1=RSC/1000000.
```

```
      DT5=BRSC(4)/1000000.
      DT6=BRSC(5)/1000000.
      DT7=BRSC(6)/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 5) DT1,DT1,DT5,DT6
      ET1=ONMC/1000000.
      ET5=BONMC(4)/1000000.
      ET6=BONMC(5)/1000000.
      ET7=BONMC(6)/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 6) ET1,ET1,ET5,ET6
      FT1=OFMC/1000000.
      FT6=BOFMC(4)/1000000.
      FT7=BOFMC(5)/1000000.
      FT8=BOFMC(6)/1000000.
      FT9=OFMCD/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 7) FT1,FT1,FT6,FT7,FT9
      IF(PRNTXX.NE.1) WRITE(06, 8)
      GT1=SECIC/1000000.
      GT2=SECRC/1000000.
      GT3=SECC/1000000.
      GT8=BSECC(4)/1000000.
      GT9=BSECC(5)/1000000.
      GT10=BSECC(6)/1000000.
      GT11=SECDC/1000000.
      IF(PRNTXX.NE.1) WRITE(06, 9) GT1,GT2,GT3,GT8,GT9,GT11
      HT1=SECIP/1000000.
      HT2=SECRP/1000000.
      HT3=SECP/1000000.
      HT8=BSECP(4)/1000000.
      HT9=BSECP(5)/1000000.
      HT10=BSECP(6)/1000000.
      HT11=SECDP/1000000.
      IF(PRNTXX.NE.1) WRITE(06,10) HT1,HT2,HT3,HT8,HT9,HT11
      IT1=IIMCI/1000000.
      IT2=IIMCR/1000000.
      IT3=IIMC/1000000.
      IT8=BIIMC(4)/1000000.
      IT9=BIIMC(5)/1000000.
      IT10=BIIMC(6)/1000000.
      IT11=IIMCD/1000000.
      IF(PRNTXX.NE.1) WRITE(06,11) IT1,IT2,IT3,IT8,IT9,IT11
      JT1=IMTRC/1000000.
      JT2=RMTRC/1000000.
      JT3=MTRC/1000000.
      JT11=DMTRC/1000000.
      IF(PRNTXX.NE.1) WRITE(06,12) JT1,JT2,JT3,JT11
      TEM01=0.
      DO 210 NS=1,MXNS
```

```
      IF(.NOT.(BPLAT(NS).EQ.1)) GO TO 210
      TEM01=TEM01+BTDC(NS)
210 CONTINUE
    BTDCA=TEM01
    TEM02=0.
    DO 220 NS=1,MXNS
      IF(.NOT.(BPLAT(NS).EQ.2)) GO TO 220
      TEM02=TEM02+BTDC(NS)
220 CONTINUE
    BTDCG=TEM02
    TEM03=0.
    DO 230 NS=1,MXNS
      IF(.NOT.(BPLAT(NS).EQ.3)) GO TO 230
      TEM03=TEM03+BTDC(NS)
230 CONTINUE
    BTDCM=TEM03
    DTDC=STDC-BTDCT
    KT1=STDCI/1000000.
    KT2=STDCR/1000000.
    KT3=STDC/1000000.
    KT8=BTDCA/1000000.
    KT9=BTDCG/1000000.
    KT10=BTDCM/1000000.
    KT11=DTDC/1000000.
    IF(PRNTXX.NE.1) WRITE(06,13) KT1,KT2,KT3,KT8,KT9,KT11
    IF(PRNTXX.NE.1) WRITE(06,14)
    TEMP1=(ISC+SECIC+SECIP+IMTRC+STDCI+IIMCI)/1000000.
    TEMP2=(OLC+AFC+RSC+ONMC+OFMC+SECRC+SECRP+RMTRC+STDCR+IIMCR)/
   +  1000000.
    TEMP3=(OLC+AFC+ISC+RSC+ONMC+OFMC+SECC+SECP+MTRC+STDC+IIMC)/
   +  1000000.
    TEMP8=(BOLC(4)+BAFC(4)+BISC(4)+BRSC(4)+BONMC(4)+BOFMC(4)+BSECC(4)+
   +  BSECP(4)+BIIMC(4)+BTDCA)/1000000.
    TEMP9=(BOLC(5)+BAFC(5)+BISC(5)+BRSC(5)+BONMC(5)+BOFMC(5)+BSECC(5)+
   +  BSECP(5)+BIIMC(5)+BTDCG)/1000000.
    TEM10=(BOLC(6)+BAFC(6)+BISC(6)+BRSC(6)+BONMC(6)+BOFMC(6)+BSECC(6)+
   +  BSECP(6)+BIIMC(6)+BTDCM)/1000000.
    TEM11=(ISCD+OFMCD+SECDC+SECDP+IIMCD+DMTRC+DTDC)/1000000.
    IF(PRNTXX.NE.1) WRITE(06,15) TEMP1,TEMP2,TEMP3,TEMP8,TEMP9,TEM11
    TEM04=0.
    DO 240 NS=1,MXNS
      IF(.NOT.(BTYPE(NS).EQ.1)) GO TO 240
      TEM04=TEM04+TNB(NS)
240 CONTINUE
    TNIB=TEM04
    TEM05=0.
    DO 250 NS=1,MXNS
```

```
        IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 250
        TEM05=TEM05+TNB(NS)
  250 CONTINUE
      TNCB=TEM05
      TEM06=0.
      DO 260 NS=1,MXNS
        IF(.NOT.(BTYPE(NS).EQ.3)) GO TO 260
        TEM06=TEM06+TNB(NS)
  260 CONTINUE
      TNSB=TEM06
      TEM07=0.
      DO 270 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.1)) GO TO 270
        TEM07=TEM07+TNB(NS)
  270 CONTINUE
      TNAB=TEM07
      TEM08=0.
      DO 280 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.2)) GO TO 280
        TEM08=TEM08+TNB(NS)
  280 CONTINUE
      TNGB=TEM08
      TEM09=0.
      DO 290 NS=1,MXNS
        IF(.NOT.(BPLAT(NS).EQ.3)) GO TO 290
        TEM09=TEM09+TNB(NS)
  290 CONTINUE
      TNMB=TEM09
      TEMPA=TNIB+TNCB+TNSB
      TEMPB=TNAB+TNGB+TNMB
      IF(PRNTXX.NE.1) WRITE(06,16) TNIB,TNAB,TNCB,TNGB,TNSB,TEMPB,TEMPA
C
      RETURN
      END
```

```
      SUBROUTINE OTAB4A
C                                                          800827 113223743
C*************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                              *
C*  PRINTS ITEM-SPECIFIC COSTS AND                                       *
C*  MAINTENANCE CHARACTERISTICS                                          *
C*************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPLT/ FPLT(999)
      COMMON /FPM/ FPM(999)
      COMMON /I/ I
      COMMON /IIMCA/ IIMCA(999)
      REAL IIMCA
      COMMON /INO/ INO(999)
      COMMON /INOUN/ INOUN(999,24)
      REAL INOUN
      COMMON /ISCA/ ISCA(999)
      REAL ISCA
      COMMON /LRU/ LRU(999)
      COMMON /MTRCI/ MTRCI(999)
      REAL MTRCI
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /OFMCA/ OFMCA(999)
      COMMON /ONMCA/ ONMCA(999)
      COMMON /PIUP/ PIUP
      COMMON /RSCA/ RSCA(999)
      COMMON /SECI/ SECI(999)
      COMMON /TDC/ TDC(999)
      COMMON /TIAC/ TIAC(999)
      COMMON /TNB/ TNB(16)
    1 FORMAT(1H1/32X,68HOUTPUT TABLE 4A: ITEM-SPECIFIC MAINTENANCE AND C
     +OSTS CHARACTERISTICS//46X,40H(COSTS IN THOUSANDS OF CONSTANT DOLLA
     +RS))
    2 FORMAT(55X,11H(CONTINUED)//)
```

```
    3 FORMAT(98X,5HTOTAL,17X,5HTOTAL/29X,3HLRU,22X,3HON-,6X,4HOFF-,22X,3
     +0HITEM      ITEM      CORR. MAINT.,1X,7HSUPPORT/2X,4HITEM,23X,5HINDI
     +-,2X,7HINITIAL,2X,5HREPL.,4X,6HEQUIP.,3X,6HEQUIP.,3X,6HMAINT.,4X,5
     +HTECH.,2X,7HINVENT.,2X,7HSUPPORT,2X,9HCOST/FAIL,4X,6HCOST +/2X,5HI
     +NDEX,2X,9HITEM NAME,11X,5HCATOR,2X,6HSPARES,3X,6HSPARES,3X,6HMAINT
     +.,3X,6HMAINT.,3X,8HTRAINING,2X,6HORDERS,1X,5HMGMT.,4X,4HCOST,5X,11
     +H(RSCA+ONMCA,2X,4HSECI/2X,3H(I),24X,5H(LRU),2X,6H(ISCA),3X,6H(RSCA
     +),3X,7H(ONMCA),2X,7H(OFMCA),2X,7H(MTRCI),3X,5H(TDC),2X,7H(IIMCA),1
     +2X,7H+OFMCA),5X,6H(TIAC)/)
    4 FORMAT(1X,I3,3X,20A1,3X,I2,2X,8(F8.1,1X),3X,F6.3,3X,F8.1)
    5 FORMAT(3X,22(1H-),9X,8(8(1H-),1X),14X,8(1H-)/3X,22HCOST TOTALS OVE
     +R ITEMS,9X,8(F8.1,1X),10X,F11.1)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      TEMP6=0.
      TEMP7=0.
      TEMP8=0.
      TEMP9=0.
      TEMP9A=0.
      TEMP9B=0.
      TEMP10=0.
      TEMP11=0.
      TEMP16=0.
      IPAGE=40
      IFLAG=1
      DO 260 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
        TEMP1=ISCA(I)/1000.
        TEMP2=RSCA(I)/1000.
        TEMP3=ONMCA(I)/1000.
        TEMP4=OFMCA(I)/1000.
        TEMP4A=MTRCI(I)/1000.
        TEMP4B=TDC(I)/1000.
        TEMP5=IIMCA(I)/1000.
        TIC=TEMP1+TEMP2+TEMP3+TEMP4+TEMP4A+TEMP4B+TEMP5
```

```
      TEM01=0.
      DO 230 NS=1,MXNS
        TEM01=TEM01+TNB(NS)*FAIL(I,NS)
  230 CONTINUE
      FPM(I)=TEM01
      FPLT(I)=12.*PIUP*FPM(I)
      CMCF=(RSCA(I)+ONMCA(I)+OFMCA(I))/1000./FPLT(I)
      TEM03=0.
      DO 250 NS=1,MXNS
        TEM02=0.
        DO 240 NP=1,MXNP
          TEM02=TEM02+NPLT(NP,NS)*NITEM(I,NP)
  240   CONTINUE
        TEM03=TEM03+TNB(NS)*TEM02
  250 CONTINUE
      STNI=TEM03
      TIAC(I)=TIC+SECI(I)/1000.
      WRITE( 7, 4) I,(INOUN(I,K1),K1=1,20),LRU(I),TEMP1,TEMP2,TEMP3,
     +   TEMP4,TEMP4A,TEMP4B,TEMP5,TIC,CMCF,TIAC(I)
      TEMP6=TEMP6+TEMP1
      TEMP7=TEMP7+TEMP2
      TEMP8=TEMP8+TEMP3
      TEMP9=TEMP9+TEMP4
      TEMP9A=TEMP9A+TEMP4A
      TEMP9B=TEMP9B+TEMP4B
      TEMP10=TEMP10+TEMP5
      TEMP11=TEMP11+TIC
      TEMP16=TEMP16+TIAC(I)
      IPAGE=IPAGE+1
      IFLAG=0
  260 CONTINUE
      WRITE( 7, 5) TEMP6,TEMP7,TEMP8,TEMP9,TEMP9A,TEMP9B,TEMP10,TEMP11,
     +  TEMP16
C
      RETURN
      END
```

```
      SUBROUTINE OTAB4B
C                                                          800827 113314325
C*****************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                                  *
C*  PRINTS ITEM-SPECIFIC COSTS AND                                           *
C*  MAINTENANCE CHARACTERISTICS                                              *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BS/ BS(999)
      COMMON /DS/ DS(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPLT/ FPLT(999)
      COMMON /FPM/ FPM(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LUP/ LUP(999)
      REAL LUP
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /PIUP/ PIUP
      COMMON /TNB/ TNB(16)
      COMMON /TOTPQ/ TOTPQ(999)
    1 FORMAT(1H1/37X,71HOUTPUT TABLE 4B: SYSTEM-WIDE ITEM COSTS AND MAIN
     +TENANCE CHARACTERISTICS/)
    2 FORMAT(58X,11H(CONTINUED)//)
    3 FORMAT(11X,6HSYSTEM,5X,9HTOTAL NO.,3X,9HTOTAL NO.,11X,6HNO. OF,5X,
     +11HNO. OF LIFE,17X,10HPRODUCTION/11X,6HNO. OF,5X,10HOF INITIAL,2X,
     +10HOF INITIAL,2X,6HSYSTEM,2X,4HITEM,7X,11HCYCLE FAILS,5X,7HLEARNED
     +,5X,8HCONTRACT/2X,4HITEM,5X,9HINSTALLED,2X,4HBASE,8X,5HDEPOT,7X,6H
     +NO. OF,2X,9HFAILS PER,2X,10H(NO RIP OR,6X,4HUNIT,8X,11HPROCUREMENT
     +/2X,5HINDEX,4X,5HITEMS,6X,6HSPARES,6X,6HSPARES,6X,5HITEMS,3X,6HMON
     +TH ,5X,12HFALSE PULLS),4X,4HCOST,8X,8HQUANTITY//)
    4 FORMAT(3X,I3,5X,F7.0,4X,F5.0,7X,F5.0,6X,F7.0,2X,F7.2,5X,F7.0,8X,F6
     +.0,9X,F7.0)
C
C
```

```
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      IPAGE=40
      IFLAG=1
      DO 260 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
        TEM01=0.
        DO 230 NS=1,MXNS
          TEM01=TEM01+TNB(NS)*FAIL(I,NS)
  230   CONTINUE
        FPM(I)=TEM01
        FPLT(I)=12.*PIUP*FPM(I)
        TEM03=0.
        DO 250 NS=1,MXNS
          TEM02=0.
          DO 240 NP=1,MXNP
            TEM02=TEM02+NPLT(NP,NS)*NITEM(I,NP)
  240     CONTINUE
          TEM03=TEM03+TNB(NS)*TEM02
  250   CONTINUE
        STNI=TEM03
        SNOI=STNI+BS(I)+DS(I)
        WRITE( 7, 4) I,STNI,BS(I),DS(I),SNOI,FPM(I),FPLT(I),LUP(I),
     +    TOTPQ(I)
        IPAGE=IPAGE+1
        IFLAG=0
  260 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE OTAB4C
C                                                              800827 113346937
C*****************************************************************************
C*  PRINTS ITEM-SPECIFIC COSTS AND                                           *
C*  MAINTENANCE CHARACTERISTICS                                              *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /FPLT/ FPLT(999)
      COMMON /FPM/ FPM(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /OFMCA/ OFMCA(999)
      COMMON /ONMCA/ ONMCA(999)
      COMMON /RSCA/ RSCA(999)
    1 FORMAT(1H1/32X,56HOUTPUT TABLE 4C: SYSTEM-WIDE MAINTENANCE CHARACT
     +ERISTICS///)
    2 FORMAT(23X,35HAVERAGE CORRECTIVE MAINTENANCE COST,10X,30HTOTAL NUM
     +BERS OF LRU FAILURES:/26X,20HPER FAILURE ($K) FOR//28X,4HLRUS,8X,4
     +HSRUS,27X,7HMONTHLY,3X,8HLIFETIME//26X,F6.3,6X,F6.3,27X,F7.0,2X,F9
     +.0)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      TEM01=0.
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ.1)) GO TO 210
        TEM01=TEM01+FPM(I)
  210 CONTINUE
      TEMP14=TEM01
      TEM02=0.
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ.1)) GO TO 220
        TEM02=TEM02+FPLT(I)
  220 CONTINUE
      TEMP15=TEM02
```

```
      TEM03=0.
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ.1)) GO TO 230
        TEM03=TEM03+RSCA(I)+ONMCA(I)+OFMCA(I)
  230 CONTINUE
      TEMP12=TEM03
      TEM04=0.
      DO 240 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ.1)) GO TO 240
        TEM04=TEM04+FPLT(I)
  240 CONTINUE
      TEMP12=TEMP12/(1000.*TEM04)
      TEM05=0.
      DO 250 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ 0)) GO TO 250
        TEM05=TEM05+RSCA(I)+ONMCA(I)+OFMCA(I)
  250 CONTINUE
      TEMP13=TEM05
      TEM06=0.
      DO 260 IXXX  ',MXI
        I=INO(IXXX1,
        IF(.NOT.(LRU(I).EQ.0)) GO TO 260
        TEM06=TEM06+FPLT(I)
  260 CONTINUE
      TEMP13=TEMP13/(1000.*TEM06)
      WRITE( 7, 2) TEMP12,TEMP13,TEMP14,TEMP15
C
      RETURN
      END
```

```
      SUBROUTINE OTAB5
C                                                              800827 113410567
C*****************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                                  *
C*  PRINTS SUPPORT EQUIPMENT REQUIREMENTS AND COSTS                          *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CSE/ CSE(250)
      COMMON /L/ L
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MXL/ MXL
      COMMON /MXNS/ MXNS
      COMMON /NS/ NS
      COMMON /NSEB/ NSEB(250,16)
      REAL NSEB
      COMMON /NSED/ NSED(250)
      REAL NSED
      COMMON /PIUP/ PIUP
      COMMON /SEDV/ SEDV(250)
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /SENOUN/ SENOUN(250,20)
      COMMON /SETDC/ SETDC(250)
      COMMON /TNB/ TNB(16)
      COMMON /TUCTDC/ TUCTDC
    1 FORMAT(1H1,27X,56HOUTPUT TABLE 5: SUPPORT EQUIPMENT REQUIREMENTS A
     +ND COSTS/43X,18H(COSTS IN DOLLARS)///30X,93H* SUPPORT EQUIPMENT UN
     +ITS REQUIRED AT: *  SYSTEM   * UNIT  * TECH. * SE    * SYSTEM
     +    */30X,1H*,38(1H-),54H*  TOTAL    * LIFE- * ORDER * DEVMT * LIF
     +E-          */3X,2HSE,25X,93H* INDEP CIMF  *  AIR  GROUND *  THE
     +  *  REQUIRED * TIME  * COST  * COST  * TIME           */2X,5HINDE
     +X,2X,20HSUPPORT EQUIP. NAME ,1X,93H* BASES BASES * BASES BASES  *
     +DEPOT   *  UNITS    * COST  *       *       * COST ($K)      */3X,
     +3H(L),24X,93H*             *              *         *  (1)      *
     +(2)   * (3)   * (4)   * (1)*(2)+(3)+(4)*///)
    2 FORMAT(2X,I3,3X,20A1,2X,F6.0,1X,F6.0,1X,F6.0,1X,F6.0,2X,F6.1,5X,F7
     +.0,2X,F8.0,1X,F8.0,1X,F8.0,4X,F10.0)
    3 FORMAT(///95X,11HSUBTOTAL = ,4X,F10.0)
```

```
    4 FORMAT(//74X,32HUCT SOFTWARE DEVELOPMENT COST = ,4X,F10.0)
    5 FORMAT(109X,14(1H-)/)
    6 FORMAT(75X,31HTOTAL SUPPORT EQUIPMENT COST = ,1X,F13.0)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      T10=0.
      WRITE( 7, 1)
      DO 260 IXXX1=1,MXL
        L=SEINO(IXXX1)
        TEM01=0.
        DO 210 NS=1,MXNS
          IF(.NOT.(BTYPE(NS).EQ.1)) GO TO 210
          TEM01=TEM01+TNB(NS)*NSEB(L,NS)
  210   CONTINUE
        T1=TEM01
        TEM02=0.
        DO 220 NS=1,MXNS
          IF(.NOT.(BTYPE(NS).EQ.2)) GO TO 220
          TEM02=TEM02+TNB(NS)*NSEB(L,NS)
  220   CONTINUE
        T2=TEM02
        TEM03=0.
        DO 230 NS=1,MXNS
          IF(.NOT.(BPLAT(NS).EQ.1)) GO TO 230
          TEM03=TEM03+TNB(NS)*NSEB(L,NS)
  230   CONTINUE
        T3=TEM03
        TEM04=0.
        DO 240 NS=1,MXNS
          IF(.NOT.(BPLAT(NS).EQ.2)) GO TO 240
          TEM04=TEM04+TNB(NS)*NSEB(L,NS)
  240   CONTINUE
        T4=TEM04
        TEM05=0.
        DO 250 NS=1,MXNS
          IF(.NOT.(BPLAT(NS).EQ.3)) GO TO 250
          TEM05=TEM05+TNB(NS)*NSEB(L,NS)
  250   CONTINUE
        T5=TEM05
        T6=NSED(L)
        T7=T1+T2+T6
        T8=CSE(L)*(1.+PIUP*MSE(L))
        T8A=SETDC(L)
```

```
            T8B=SEDV(L)
            T9=(T7*T8+T8A+T8B)/1000.
            T10=T10+T9
            T11=T10+TUCTDC/1000.
            WRITE( 7, 2) L,(SENOUN(L,K1),K1=1,20),T1,T2,T3,T4,T6,T7,T8,T8A,
           +    T8B,T9
  260 CONTINUE
          WRITE( 7, 3) T10
          T12=TUCTDC/1000.
          WRITE( 7, 4) T12
          WRITE( 7, 5)
          WRITE( 7, 6) T11
C
          RETURN
          END
```

```
      SUBROUTINE OTAB6
C                                                              800827 113442053
C*****************************************************************************
C*  SSS MOD LCR - 21 MAY 80                                                  *
C*  PRINTS PLATFORM/TERMINAL FAILURE RATE                                    *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /APFH/ APFH(10,3)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /KFAC/ KFAC(4)
      REAL KFAC
      COMMON /LE/ LE(10)
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NP/ NP
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NS/ NS
      COMMON /NTRMP/ NTRMP(10)
      REAL NTRMP
      COMMON /PNOUN/ PNOUN(10,12)
      COMMON /TERMC/ TERMC(10)
      COMMON /TFAC/ TFAC(10)
      COMMON /TNB/ TNB(16)
      COMMON /XFR/ XFR
    1 FORMAT(1H1,22X,51HOUTPUT TABLE 6: PLATFORM/TERMINAL FAILURE RATE D
     +ATA          ///24X,55HSYSTEM  PME     FAILS*/  FAILS*/  FAILS*/
     +FAILS*/     /88H  PLAT-                NO. OF  TERM.   MONTH    M
     +ONTH    MIL.HRS  MIL.HRS    PROD. COST/86H  FORM
     +PLAT-   PER      PER       PER      PER      PER        PER PLAT  /8
     +7H  INDEX  PLATFORM NAME  FORMS   PLAT    PLAT     TERM.    PLAT
     +   TERMINAL   TYPE ($K) /38H  (NP)                          (NTRMP)
     +         /)
    2 FORMAT(3X,I2,4X,12A1,3X,F6.0,2X,F5.2,3X,F6.3,2X,F6.3,2X,F7.0,2X,F7
     +.0,5X,F8.0)
```

```
    3 FORMAT(////4X,65H* THESE FAILURES INCLUDE EVERY EVENT REQUIRING MA
     +INTENANCE ACTION/6X,65H(INCLUDING REPAIR-IN-PLACE).  THEY DO NOT I
     +NCLUDE FALSE PULLS.    )
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      WRITE( 7, 1)
      DO 250 NP=1,MXNP
        TEM01=0.
        DO 210 NS=1,MXNS
          TEM01=TEM01+TNB(NS)*NPLT(NP,NS)
  210   CONTINUE
        TPLT=TEM01
        PFPM=0.
        TEM02=0.
        DO 220 IXXX2=1,MXI
          I=INO(IXXX2)
          IF(.NOT.(LRU(I).EQ.1.AND.NITEM(I,NP).GT..000001)) GO TO 220
          TEM02=TEM02+NITEM(I,NP)/MTBMI(I,LE(NP))
  220   CONTINUE
        TEM03=0.
        DO 230 NS=1,MXNS
          TEM03=TEM03+NPLT(NP,NS)*TNB(NS)*APFH(NP,LO(NS))
  230   CONTINUE
        PFPM=TEM02*TEM03*TFAC(NP)*KFAC(LE(NP))*XFR/TPLT
        TFPM=PFPM/NTRMP(NP)
        PFPMH=0.
        TEM04=0.
        DO 240 IXXX2=1,MXI
          I=INO(IXXX2)
          IF(.NOT.(LRU(I).EQ.1.AND.NITEM(I,NP).GT..000001)) GO TO 240
          TEM04=TEM04+NITEM(I,NP)/MTBMI(I,LE(NP))
  240   CONTINUE
        PFPMH=TEM04*TFAC(NP)*KFAC(LE(NP))*1000000.*XFR
        TFPMH=PFPMH/NTRMP(NP)
        T1=TERMC(NP)/1000.
        WRITE( 7, 2) NP,(PNOUN(NP,K1),K1=1,12),TPLT,NTRMP(NP),PFPM,TFPM,
     +    PFPMH,TFPMH,T1
  250 CONTINUE
      WRITE( 7, 3)
C
      RETURN
      END
```

```
      SUBROUTINE OTAB7
C                                                                    800827 113508624
C*********************************************************************************
C*  BASELINE CHANGES                                                             *
C*  PRINTS MANPOWER REQUIREMENTS                                                 *
C*********************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /ABMHYD/ ABMHYD(16)
      COMMON /ABMHYM/ ABMHYM(16)
      COMMON /ABMP/ ABMP(16)
      COMMON /ADMP/ ADMP
      COMMON /BCMH/ BCMH(999)
      COMMON /BMF/ BMF
      COMMON /BMH/ BMH(999)
      COMMON /COND/ COND(999)
      COMMON /DMF/ DMF
      COMMON /DMH/ DMH(999)
      COMMON /FAIL/ FAIL(999,16)
      COMMON /FPR/ FPR(999)
      COMMON /HPD1/ HPD1
      INTEGER HPD1
      COMMON /HPD2/ HPD2
      INTEGER HPD2
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MRF/ MRF
      REAL MRF
      COMMON /MRO/ MRO
      REAL MRO
      COMMON /MXI/ MXI
      COMMON /MXNS/ MXNS
      COMMON /NHI/ NHI(999)
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /NS/ NS
      COMMON /QTYP1/ QTYP1
      INTEGER QTYP1
      COMMON /QTYP2B/ QTYP2B
      INTEGER QTYP2B
      COMMON /QTYP2D/ QTYP2D
      INTEGER QTYP2D
      COMMON /RIP/ RIP(999)
```

```
      COMMON /RTS/ RTS(999)
      COMMON /SAMHY/ SAMHY
      COMMON /SAMP/ SAMP
      COMMON /SR/ SR
      COMMON /TABMHY/ TABMHY(16)
      COMMON /TABMP/ TABMP(16)
      COMMON /TIME1/ TIME1(999)
      INTEGER TIME1
      COMMON /TMPYT1/ TMPYT1
      COMMON /TMPYT2/ TMPYT2
      COMMON /TNB/ TNB(16)
      COMMON /TORB/ TORB
      COMMON /TORD/ TORD
      COMMON /TR/ TR
      COMMON /T2BA/ T2BA
      COMMON /T2DA/ T2DA
      COMMON /XFPR/ XFPR
      REAL NHNRT
      REAL NHRT
    1 FORMAT(1H1,22X,38HOUTPUT TABLE 7:  MANPOWER REQUIREMENTS///2X,4HBA
     +SE,5X,12HMANHOURS PER,10X,14HTOTAL MANYEARS,6X,14HTOTAL MANHOURS,6
     +X,14HTOTAL MANYEARS/2X,4HTYPE,5X,13HYEAR PER BASE,7X,17HPER YEAR P
     +ER BASE,3X,18HPER YEAR/BASE TYPE,2X,18HPER YEAR/BASE TYPE/2X,4H(NS
     +)/9X,20HMAINT.    MGMT. DATA//)
    2 FORMAT(3X,I2,4X,F6.0,4X,F6.0,11X,F4.1,15X,F8.0,13X,F6.1)
    3 FORMAT(/2X,4HBASE/2X,5HTOTAL,4X,3H- -,8X,3H- -,12X,3H- -,15X,F8.0,
     +13X,F6.1)
    4 FORMAT(/2X,5HDEPOT/2X,5HTOTAL,4X,3H- -,8X,3H- -,12X,3H- -,15X,F8.0
     +,13X,F6.1/)
    5 FORMAT(2X,5HTOTAL,48X,F8.0,13X,F6.1////)
    6 FORMAT(31X,23HTOTAL MANYEARS PER YEAR/35X,23H    IN TRAINING
     +  //9X,20HFIRST YEAR          ,8X,F6.1//9X,20HEACH SUBSEQUENT YEAR
     +,8X,F6.1)
C
C
C
C.....ONLY PRINT THIS TABLE IF FULL OFF-LINE OUTPUT WAS REQUESTED
      IF(PRNTXX.EQ.0.OR.FULLXX.EQ.0) RETURN
C
      TEM01=0.
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        TEM01=TEM01+TIME1(I)
  210 CONTINUE
      T1=TEM01
      ABMHY=0.
      ABMPY=0.
```

```
      ADMHY=0.
      WRITE( 7, 1)
      DO 250 NS=1,MXNS
        SUM1=0.
        SUM2=0.
        SUM3=0.
        DO 240 IXXX2=1,MXI
          I=INO(IXXX2)
          NHRT=0.
          NHNRT=0.
          IF(.NOT.(LRU(I).EQ.0)) GO TO 220
            NHRT=RTS(NHI(I))
            NHNRT=NRTS(NHI(I))
220       CONTINUE
          ABMHFM=(FLOAT(LRU(I))+NHRT)*(((1.+FPR(I)*XFPR)*BCMH(I)+RTS(I)*
     +      BMH(I))*BMF)
          ADMHF=((FLOAT(LRU(I))+NHRT)*NRTS(I)+NHNRT*(1.-COND(I)))*DMH(I)
     +      *DMF
          SUM1=SUM1+ABMHFM*FAIL(I,NS)
          SUM2=SUM2+ADMHF*FAIL(I,NS)*TNB(NS)
          T2=1.0
          IF(.NOT.(RIP(I).NE.1.0)) GO TO 230
            T2=RIP(I)/(1.0-RIP(I))
230       CONTINUE
          SUM3=SUM3+(T2*MRO+MRF+SR+TR)*FAIL(I,NS)
240     CONTINUE
        ABMHYM(NS)=12.*SUM1
        ABMHYD(NS)=12.*SUM3
        ABMP(NS)=(ABMHYM(NS)+ABMHYD(NS))/1728.
        TABMHY(NS)=(ABMHYM(NS)+ABMHYD(NS))*TNB(NS)
        TABMP(NS)=TABMHY(NS)/1728.
        ABMPY=ABMPY+TABMP(NS)
        ABMHY=ABMHY+TABMHY(NS)
        ADMHY=ADMHY+12.*SUM2
        WRITE( 7, 2) NS,ABMHYM(NS),ABMHYD(NS),ABMP(NS),TABMHY(NS),
     +    TABMP(NS)
250   CONTINUE
      ADMP=ADMHY/1728.
      SAMHY=ABMHY+ADMHY
      SAMP=ABMPY+ADMP
      TMPYT1=FLOAT(QTYP1)*AINT(T1/FLOAT(HPD1)+.5)/216.+FLOAT(QTYP2D)*
     +  AINT(T2DA/FLOAT(HPD2)+.5)/216.+FLOAT(QTYP2B)*AINT(T2BA/
     +  FLOAT(HPD2)+.5)/216.
      TMPYT2=FLOAT(QTYP2D)*TORD*AINT(T2DA/FLOAT(HPD2)+.5)/216.+
     +  FLOAT(QTYP2B)*TORB*AINT(T2BA/FLOAT(HPD2)+.5)/216.
      WRITE( 7, 3) ABMHY,ABMPY
      WRITE( 7, 4) ADMHY,ADMP
```

```
      WRITE( 7, 5) SAMHY,SAMP
      WRITE( 7, 6) TMPYT1,TMPYT2
C
      RETURN
      END
```

```
      SUBROUTINE RLAPRT
C                                                              800827 113546619
C*****************************************************************************
C*  PRINTS TIAC TO A FILE OF LATER USE IN RLA                                *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /TIAC/ TIAC(999)
      INTEGER FINISH
      INTEGER START
    1 FORMAT(I3)
    2 FORMAT(6(I3,1X,F8.1,1X))
    3 FORMAT(1H$)
C
C
C
C
      WRITE(23, 1) MXI
      DO 220 DUM=1,MXI,6
        START=DUM
        FINISH=DUM+5
        IF(.NOT.(FINISH.GT.MXI)) GO TO 210
          FINISH=MXI
  210   CONTINUE
        WRITE(23, 2) (INO(I),TIAC(INO(I)),I=START,FINISH)
  220 CONTINUE
      WRITE(23, 3)
C
      RETURN
      END
```

```
      SUBROUTINE OSENS
C                                                          800827 113554443
C*************************************************************************
C*  PRINTS THE RESULTS OF THE SENSITIVITY ANALYSIS ON THE                *
C*  OFF-LINE PRINTER AND/OR AT THE TERMINAL.                             *
C*  IF PRNTXX=1 OR 2, OUTPUT GOES TO THE PRINTER.                        *
C*  IF PRNTXX=0 OR 2, OUTPUT GOES TO THE TERMINAL.                       *
C*************************************************************************
C
      DIMENSION XXTEM1(  999),XXTEM2(  999)
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /COND/ COND(999)
      COMMON /CPIUP/ CPIUP
      COMMON /FINC/ FINC
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /IDCOND/ IDCOND(999)
      COMMON /IDFPR/ IDFPR(999)
      COMMON /IDFR/ IDFR(999)
      COMMON /IDNRTS/ IDNRTS(999)
      COMMON /IDRM/ IDRM(999)
      COMMON /IDRTS/ IDRTS(999)
      COMMON /IDSRU/ IDSRU(999)
      COMMON /IDUP/ IDUP(999)
      COMMON /INO/ INO(999)
      COMMON /LDCOND/ LDCOND
      COMMON /LDERV/ LDERV
      COMMON /LDFPR/ LDFPR
      COMMON /LDFR/ LDFR
      COMMON /LDNRTS/ LDNRTS
      COMMON /LDRM/ LDRM
      COMMON /LDRTS/ LDRTS
      COMMON /LDSRU/ LDSRU
      COMMON /LDUP/ LDUP
      COMMON /LRU/ LRU(999)
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RM/ RM(999)
      COMMON /RTS/ RTS(999)
      COMMON /TDCOND/ TDCOND(999)
      COMMON /TDFPR/ TDFPR(999)
      COMMON /TDFR/ TDFR(999)
      COMMON /TDMF/ TDMF
      COMMON /TDNRTS/ TDNRTS(999)
      COMMON /TDPIUP/ TDPIUP
      COMMON /TDRM/ TDRM(999)
```

```
      COMMON /TDRTS/ TDRTS(999)
      COMMON /TDSRU/ TDSRU(999)
      COMMON /TDUP/ TDUP(999)
      COMMON /TDXFPR/ TDXFPR
      COMMON /TDXFR/ TDXFR
      COMMON /TDXMIL/ TDXMIL
      COMMON /TDXRM/ TDXRM
      COMMON /TDXUC/ TDXUC
      COMMON /TFR/ TFR(999)
      COMMON /UP/ UP(999)
C
    1 FORMAT(1H1/25X,30HLCC SENSITIVITY ANALYSIS TABLE/)
    2 FORMAT(30H   CHANGE IN LCC ($M)          ,12F7.3)
    3 FORMAT(1X/41H CHANGE IN LCC ($M) DUE TO AN INCREASE OF,F5.1,25H %
     +IN:                    )
    4 FORMAT(46H   GLOBAL UNIT COST (XUC FACTOR) -             ,F12.3)
    5 FORMAT(46H   GLOBAL FAILURE RATE (XFR FACTOR) -          ,F12.3)
    6 FORMAT(46H   GLOBAL FALSE PULL RATE (XFPR FACTOR) -      ,F12.3)
    7 FORMAT(46H   MAINTENANCE REPAIR TIMES (BMF/DMF FACTOR) -,F12.3)
    8 FORMAT(46H   REPAIR MATERIALS COST (XRM FACTOR) -        ,F12.3)
    9 FORMAT(46H   MOD/I LABOR HOURS (XMIL FACTOR) -           ,F12.3)
   10 FORMAT(1X/41H CHANGE IN LCC ($M) DUE TO AN INCREASE OF,F5.1,25H YE
     +ARS IN:                )
   11 FORMAT(46H   SYSTEM LIFETIME (PIUP FACTOR) -             ,F12.3)
   12 FORMAT(1X/71H ITEM FAILURE RATE (ORDERED BY SIGNIFICANCE)
     +                    )
   13 FORMAT(/30H   ITEM INDEX                  ,3X,12(I4,3X))
   14 FORMAT(30H   CHANGE IN FR (PPM)          ,12F7.0)
   15 FORMAT(1X/71H ITEM UNIT COST (ORDERED BY SIGNIFICANCE)
     +                    )
   16 FORMAT(/30H   ITEM INDEX                  ,3X,12(I4,3X))
   17 FORMAT(30H   CHANGE IN UP                ,12F7.0)
   18 FORMAT(1X/71H ITEM FALSE PULL RATE (ORDERED BY SIGNIFICANCE)
     +                    )
   19 FORMAT(/30H   ITEM INDEX                  ,1X,12(I4,3X))
   20 FORMAT(30H   CHANGE IN FPR               ,12F7.3)
   21 FORMAT(1X/71H ITEM REPAIR MATERIALS COST (ORDERED BY SIGNIFICANCE)
     +                    )
   22 FORMAT(/30H   ITEM INDEX                  ,3X,12(I4,3X))
   23 FORMAT(30H   CHANGE IN RM (COST)         ,12F7.0)
   24 FORMAT(1X/71H ITEM INTERMEDIATE REPAIR FRACTION (ORDERED BY SIGNIF
     +ICANCE)            )
   25 FORMAT(/30H   ITEM INDEX                  ,1X,12(I4,3X))
   26 FORMAT(30H   CHANGE IN RTS               ,12F7.2)
   27 FORMAT(1X/71H ITEM DEPOT REPAIR FRACTION (ORDERED BY SIGNIFICANCE)
     +                    )
   28 FORMAT(/30H   ITEM INDEX                  ,1X,12(I4,3X))
```

```
   29 FORMAT(30H   CHANGE IN NRTS              ,12F7.2)
   30 FORMAT(1X/71H ITEM CONDEMNATION RATE (ORDERED BY SIGNIFICANCE)
     +                    )
   31 FORMAT(/30H   ITEM INDEX                  ,1X,12(I4,3X))
   32 FORMAT(30H   CHANGE IN COND              ,12F7.2)
   33 FORMAT(1X/71H LCC SENSITIVITY ON WHICH SRUS SHOULD BE LRU
     +                    )
   34 FORMAT(/30H   ITEM INDEX                  ,3X,12(I4,3X))
   35 FORMAT(30H   CHANGE IN SRU               ,12F7.0)
C
C
C
      IF(PRNTXX.NE.1)WRITE(6,1)
      IF(PRNTXX.NE.0)WRITE(7,1)
      TEMXXX=FINC*100.
      IF(PRNTXX.NE.1)WRITE(6, 3) TEMXXX
      IF(PRNTXX.NE.0)WRITE(7, 3) TEMXXX
      IF(PRNTXX.NE.1)WRITE(6, 4) TDXUC
      IF(PRNTXX.NE.0)WRITE(7, 4) TDXUC
      IF(PRNTXX.NE.1)WRITE(6, 5) TDXFR
      IF(PRNTXX.NE.0)WRITE(7, 5) TDXFR
      IF(PRNTXX.NE.1)WRITE(6, 6) TDXFPR
      IF(PRNTXX.NE.0)WRITE(7, 6) TDXFPR
      IF(PRNTXX.NE.1)WRITE(6, 7) TDMF
      IF(PRNTXX.NE.0)WRITE(7, 7) TDMF
      IF(PRNTXX.NE.1)WRITE(6, 8) TDXRM
      IF(PRNTXX.NE.0)WRITE(7, 8) TDXRM
      IF(PRNTXX.NE.1)WRITE(6, 9) TDXMIL
      IF(PRNTXX.NE.0)WRITE(7, 9) TDXMIL
      TEMXXX=CPIUP
      IF(PRNTXX.NE.1)WRITE(6,10) TEMXXX
      IF(PRNTXX.NE.0)WRITE(7,10) TEMXXX
      IF(PRNTXX.NE.1)WRITE(6,11) TDPIUP
      IF(PRNTXX.NE.0)WRITE(7,11) TDPIUP
C
C*****************************************************************************
C*  SECTION  1:  ITEM FAILURE RATE (ORDERED BY SIGNIFICANCE)                 *
C*****************************************************************************
C
      IF(LDFR  .EQ.0.AND.LDERV .EQ.0) GO TO 305
      IXXX=MAX0(LDERV ,LDFR  )
      DO 301 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *TFR(IDFR  (JXXX))
        XXTEM2(JXXX)=TDFR  (IDFR  (JXXX))
  301 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
```

```
      IF(LDFR  .EQ.0.OR.PRNTXX.EQ.1) GO TO 303
      WRITE(6, 12)
      DO 302 JXXX=1,LDFR  ,6
        MMHI=MINO(LDFR  ,JXXX+5)
        WRITE(6, 13) (IDFR  (KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 14) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  302 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  303 IF(PRNTXX.EQ.0) GO TO 305
      WRITE(7, 12)
      DO 304 JXXX=1,IXXX,12
        MMHI=MINO(IXXX,JXXX+11)
        WRITE(7, 13) (IDFR  (KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 14) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  304 CONTINUE
  305 CONTINUE
C
C*************************************************************************
C*  SECTION  2:  ITEM UNIT COST (ORDERED BY SIGNIFICANCE)                *
C*************************************************************************
C
      IF(LDUP  .EQ.0.AND.LDERV .EQ.0) GO TO 310
      IXXX=MAXO(LDERV ,LDUP  )
      DO 306 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *UP(IDUP  (JXXX))
        XXTEM2(JXXX)=TDUP  (IDUP  (JXXX))
  306 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDUP  .EQ.0.OR.PRNTXX.EQ.1) GO TO 308
      WRITE(6, 15)
      DO 307 JXXX=1,LDUP  ,6
        MMHI=MINO(LDUP  ,JXXX+5)
        WRITE(6, 16) (IDUP  (KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 17) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  307 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  308 IF(PRNTXX.EQ.0) GO TO 310
      WRITE(7, 15)
      DO 309 JXXX=1,IXXX,12
        MMHI=MINO(IXXX,JXXX+11)
        WRITE(7, 16) (IDUP  (KXXX),KXXX=JXXX,MMHI)
```

```
        WRITE(7, 17) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  309 CONTINUE
  310 CONTINUE
C
C*************************************************************************/******
C*  SECTION  3:  ITEM FALSE PULL RATE (ORDERED BY SIGNIFICANCE)          *
C*************************************************************************/******
C
      IF(LDFPR .EQ.0.AND.LDERV .EQ.0) GO TO 315
      IXXX=MAX0(LDERV ,LDFPR )
      DO 311 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *FPR(IDFPR (JXXX))
        XXTEM2(JXXX)=TDFPR (IDFPR (JXXX))
  311 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDFPR .EQ.0.OR.PRNTXX.EQ.1) GO TO 313
      WRITE(6, 18)
      DO 312 JXXX=1,LDFPR ,6
        MMHI=MIN0(LDFPR ,JXXX+5)
        WRITE(6, 19) (IDFPR (KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 20) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  312 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  313 IF(PRNTXX.EQ.0) GO TO 315
      WRITE(7, 18)
      DO 314 JXXX=1,IXXX,12
        MMHI=MIN0(IXXX,JXXX+11)
        WRITE(7, 19) (IDFPR (KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 20) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  314 CONTINUE
  315 CONTINUE
C
C*************************************************************************/******
C*  SECTION  4:  ITEM REPAIR MATERIALS COST (ORDERED BY SIGNIFICANC     *
C*************************************************************************/******
C
      IF(LDRM  .EQ.0.AND.LDERV .EQ.0) GO TO 320
      IXXX=MAX0(LDERV ,LDRM  )
      DO 316 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *RM(IDRM  (JXXX))*UP(IDRM  (JXXX))
        XXTEM2(JXXX)=TDRM  (IDRM  (JXXX))
  316 CONTINUE
```

```
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDRM  .EQ.0.OR.PRNTXX.EQ.1) GO TO 318
      WRITE(6, 21)
      DO 317 JXXX=1,LDRM  ,6
        MMHI=MIN0(LDRM  ,JXXX+5)
        WRITE(6, 22) (IDRM  (KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 23) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  317 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  318 IF(PRNTXX.EQ.0) GO TO 320
      WRITE(7, 21)
      DO 319 JXXX=1,IXXX,12
        MMHI=MIN0(IXXX,JXXX+11)
        WRITE(7, 22) (IDRM  (KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 23) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  319 CONTINUE
  320 CONTINUE
C
C*************************************************************************
C*  SECTION  5:  ITEM INTERMEDIATE REPAIR FRACTION (ORDERED BY SIGN    *
C*************************************************************************
C
      IF(LDRTS .EQ.0.AND.LDERV .EQ.0) GO TO 325
      IXXX=MAX0(LDERV ,LDRTS )
      DO 321 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *AMIN1(FINC,NRTS(IDRTS (JXXX)))/FINC
        XXTEM2(JXXX)=TDRTS (IDRTS (JXXX))
  321 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDRTS .EQ.0.OR.PRNTXX.EQ.1) GO TO 323
      WRITE(6, 24)
      DO 322 JXXX=1,LDRTS ,6
        MMHI=MIN0(LDRTS ,JXXX+5)
        WRITE(6, 25) (IDRTS (KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 26) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  322 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  323 IF(PRNTXX.EQ.0) GO TO 325
      WRITE(7, 24)
      DO 324 JXXX=1,IXXX,12
```

```
        MMHI=MIN0(IXXX,JXXX+11)
        WRITE(7, 25) (IDRTS (KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 26) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  324 CONTINUE
  325 CONTINUE
C
C*****************************************************************************
C*  SECTION  6:  ITEM DEPOT REPAIR FRACTION (ORDERED BY SIGNIFICANC     *
C*****************************************************************************
C
      IF(LDNRTS.EQ.0.AND.LDERV .EQ.0) GO TO 330
      IXXX=MAX0(LDERV ,LDNRTS)
      DO 326 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *AMIN1(FINC,RTS(IDNRTS(JXXX)))/FINC
        XXTEM2(JXXX)=TDNRTS(IDNRTS(JXXX))
  326 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDNRTS.EQ.0.OR.PRNTXX.EQ.1) GO TO 328
      WRITE(6, 27)
      DO 327 JXXX=1,LDNRTS,6
        MMHI=MIN0(LDNRTS,JXXX+5)
        WRITE(6, 28) (IDNRTS(KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 29) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  327 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  328 IF(PRNTXX.EQ.0) GO TO 330
      WRITE(7, 27)
      DO 329 JXXX=1,IXXX,12
        MMHI=MIN0(IXXX,JXXX+11)
        WRITE(7, 28) (IDNRTS(KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 29) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  329 CONTINUE
  330 CONTINUE
C
C*****************************************************************************
C*  SECTION  7:  ITEM CONDEMNATION RATE (ORDERED BY SIGNIFICANCE)      *
C*****************************************************************************
C
      IF(LDCOND.EQ.0.AND.LDERV .EQ.0) GO TO 335
      IXXX=MAX0(LDERV ,LDCOND)
      DO 331 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *AMIN1(FINC,1.-COND(IDCOND(JXXX)))/FINC
```

```
        XXTEM2(JXXX)=TDCOND(IDCOND(JXXX))
  331 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDCOND.EQ.0.OR.PRNTXX.EQ.1) GO TO 333
      WRITE(6, 30)
      DO 332 JXXX=1,LDCOND,6
        MMHI=MIN0(LDCOND,JXXX+5)
        WRITE(6, 31) (IDCOND(KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 32) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  332 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  333 IF(PRNTXX.EQ.0) GO TO 335
      WRITE(7, 30)
      DO 334 JXXX=1,IXXX,12
        MMHI=MIN0(IXXX,JXXX+11)
        WRITE(7, 31) (IDCOND(KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 32) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  334 CONTINUE
  335 CONTINUE
C
C*****************************************************************************
C*  SECTION  8:  LCC SENSITIVITY ON WHICH SRUS SHOULD BE LRU                 *
C*****************************************************************************
C
      IF(LDSRU .EQ.0.AND.LDERV .EQ.0) GO TO 340
      IXXX=MAX0(LDERV ,LDSRU )
      DO 336 JXXX=1,IXXX
        XXTEM1(JXXX)=FINC  *FLOAT((1-LRU(IDSRU (JXXX))))/FINC
        XXTEM2(JXXX)=TDSRU (IDSRU (JXXX))
  336 CONTINUE
C
C.....PRINT OUT DERIVATIVES AT TERMINAL SIX AT A TIME.
      IF(LDSRU .EQ.0.OR.PRNTXX.EQ.1) GO TO 338
      WRITE(6, 33)
      DO 337 JXXX=1,LDSRU ,6
        MMHI=MIN0(LDSRU ,JXXX+5)
        WRITE(6, 34) (IDSRU (KXXX),KXXX=JXXX,MMHI)
        WRITE(6, 35) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(6,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  337 CONTINUE
C
C.....PRINT OUT DERIVATIVES ON OFF-LINE PRINTER 12 AT A TIME.
  338 IF(PRNTXX.EQ.0) GO TO 340
```

```
      WRITE(7, 33)
      DO 339 JXXX=1,IXXX,12
        MMHI=MIN0(IXXX,JXXX+11)
        WRITE(7, 34) (IDSRU (KXXX),KXXX=JXXX,MMHI)
        WRITE(7, 35) (XXTEM1(KXXX),KXXX=JXXX,MMHI)
        WRITE(7,2) (XXTEM2(KXXX),KXXX=JXXX,MMHI)
  339 CONTINUE
  340 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE INITAL
C
C.....INITIALIZES VARIABLES TO DEFAULT VALUES.                800827 113608063
C
      COMMON /NTABXX/ NTABXX
      COMMON /NERRXX/ NERRXX
      COMMON /B/ B
      INTEGER B
      COMMON /BINO/ BINO(16)
      INTEGER BINO
      COMMON /BXREF/ BXREF(1)
      INTEGER BXREF
      COMMON /DIXREF/ DIXREF(1)
      INTEGER DIXREF
      COMMON /DUINO/ DUINO(999)
      INTEGER DUINO
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /I/ I
      COMMON /IA/ IA
      COMMON /IAINO/ IAINO(4)
      COMMON /IAXREF/ IAXREF(1)
      COMMON /INO/ INO(999)
      COMMON /IRM/ IRM
      COMMON /IRMINO/ IRMINO(4)
      COMMON /IRMT/ IRMT
      COMMON /IRMTNO/ IRMTNO(4)
      COMMON /IRMTXR/ IRMTXR(1)
      COMMON /IRMXRF/ IRMXRF(1)
      COMMON /IXREF/ IXREF(999)
      COMMON /K1TEMP/ K1TEMP
      COMMON /K1TNO/ K1TNO(4)
      COMMON /K2TEMP/ K2TEMP
      COMMON /K2TNO/ K2TNO(30)
      COMMON /L/ L
      COMMON /LT/ LT
      COMMON /LTINO/ LTINO(30)
      COMMON /LTXREF/ LTXREF(1)
      COMMON /LXREF/ LXREF(250)
      COMMON /M/ M
      COMMON /MINO/ MINO(3)
      COMMON /MXI/ MXI
      COMMON /MXIRM/ MXIRM
      COMMON /MXIRMT/ MXIRMT
      COMMON /MXKT/ MXKT
      COMMON /MXKTE/ MXKTE
      COMMON /MXL/ MXL
```

```
      COMMON /MXLT/ MXLT
      COMMON /MXM/ MXM
      COMMON /MXNP/ MXNP
      COMMON /MXNS/ MXNS
      COMMON /MXREF/ MXREF(1)
      COMMON /NIA/ NIA
      COMMON /NP/ NP
      COMMON /NPINO/ NPINO(10)
      COMMON /NPXREF/ NPXREF(1)
      COMMON /NS/ NS
      COMMON /NSINO/ NSINO(16)
      COMMON /NSXREF/ NSXREF(1)
      COMMON /SEINO/ SEINO(250)
      INTEGER SEINO
      COMMON /XK1TNO/ XK1TNO(1)
      INTEGER XK1TNO
      COMMON /XK2TNO/ XK2TNO(1)
      INTEGER XK2TNO
C
      NTABXX=0
      NERRXX=0
C
      DO    10 IXXX1=1,1
        IAXREF(IXXX1)=IXXX1
        XK2TNO(IXXX1)=IXXX1
        NSXREF(IXXX1)=IXXX1
        NPXREF(IXXX1)=IXXX1
        IRMXRF(IXXX1)=IXXX1
        IRMTXR(IXXX1)=IXXX1
        DIXREF(IXXX1)=IXXX1
        LTXREF(IXXX1)=IXXX1
        BXREF(IXXX1)=IXXX1
        XK1TNO(IXXX1)=IXXX1
        MXREF(IXXX1)=IXXX1
   10 CONTINUE
C
      NIA=4
      MXKT=4
      MXL=250
      MXNP=10
      MXNS=16
      MXI=999
      MXLT=30
      MXKTE=30
      MXIRM=4
      MXM=3
      MXIRMT=4
```

```
C
      DO    30 B=1,16
        BINO(B)=B
   30 CONTINUE
C
      DO    40 IRM=1,4
        IRMINO(IRM)=IRM
   40 CONTINUE
C
      DO    50 IRMT=1,4
        IRMTNO(IRMT)=IRMT
   50 CONTINUE
C
      DO    60 IXXX1=1,999
        IXREF(IXXX1)=IXXX1
   60 CONTINUE
C
      DO    70 IA=1,4
        IAINO(IA)=IA
   70 CONTINUE
C
      DO    80 DUM=1,999
        DUINO(DUM)=DUM
   80 CONTINUE
C
      DO    90 I=1,999
        INO(I)=I
   90 CONTINUE
C
      DO   100 NS=1,16
        NSINO(NS)=NS
  100 CONTINUE
C
      DO   110 IXXX1=1,250
        LXREF(IXXX1)=IXXX1
  110 CONTINUE
C
      DO   120 NP=1,10
        NPINO(NP)=NP
  120 CONTINUE
C
      DO   130 K1TEMP=1,4
        K1TNO(K1TEMP)=K1TEMP
  130 CONTINUE
C
      DO   140 M=1,3
        MINO(M)=M
```

```
  140 CONTINUE
C
      DO   150 L=1,250
        SEINO(L)=L
  150 CONTINUE
C
      DO   160 LT=1,30
        LTINO(LT)=LT
  160 CONTINUE
C
      DO   170 K2TEMP=1,30
        K2TNO(K2TEMP)=K2TEMP
  170 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE TITLE
C                                                              800827 113630740
C*****************************************************************************
C*  SUBROUTINE TO PRINT A TITLE PAGE FOR OFF-LINE OUTPUT.                    *
C*****************************************************************************
C
      COMMON /XTITLE/ XTITLE(30)
C
    1 FORMAT(1H1//////////////////////
     +44X,44H*********************************************/
     +44X,1H*,42X,1H*/
     +44X,44H*   STRATEGIC SATELLITE SYSTEM LCC MODEL   */
     +44X,1H*,42X,1H*/
     +44X,10H*   RUN:  ,30A1,4H   */
     +44X,1H*,42X,1H*/
     +44X,44H*********************************************/)
C
      WRITE(7,1) (XTITLE(L),L=1,30)
C
      RETURN
      END
```

```
      SUBROUTINE TDSORT(TD,ID,LD,N)
C                                                          800827 113644704
C*************************************************************************
C*  THIS SUBROUTINE 'BUBBLES UP' TO THE FIRST -LD- POSITIONS IN ARRAY  *
C*  -ID- THE INDEX NUMBERS CORRESPONDING TO THE -LD- HIGHEST           *
C*  VALUES OF ARRAY -TD-.                                             *
C*************************************************************************
C
      DIMENSION TD(N),ID(N)
C
      DO 7 L=1,LD
        MA=N-L
        DO 6 M=1,MA
          MB=N-M
          IF (ABS(TD(ID(MB+1))).LT.ABS(TD(ID(MB)))) GO TO 6
            IDD=ID(MB+1)
            ID(MB+1)=ID(MB)
            ID(MB)=IDD
    6   CONTINUE
    7 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE SSETXX
C                                                              800827 113644790
C*****************************************************************************
C*  THIS SUBROUTINE INITIALIZES SENSITIVITY ANALYSIS VARIABLES TO      *
C*  DEFAULT VALUES.                                                    *
C*****************************************************************************
C
      COMMON /FINC/ FINC
      COMMON /LDCOND/ LDCOND
      COMMON /LDERV/ LDERV
      COMMON /LDFPR/ LDFPR
      COMMON /LDFR/ LDFR
      COMMON /LDNRTS/ LDNRTS
      COMMON /LDRM/ LDRM
      COMMON /LDRTS/ LDRTS
      COMMON /LDSRU/ LDSRU
      COMMON /LDUP/ LDUP
C
      FINC  =.25
      LDCOND=0
      LDERV =12
      LDFPR =0
      LDFR  =0
      LDNRTS=0
      LDRM  =0
      LDRTS =0
      LDSRU =0
      LDUP  =0
C
      RETURN
      END
```

```
      SUBROUTINE PRMPT1
C                                                          800827 113645002
C*************************************************************************
C*  FIRST OF FOUR PROMPTING SUBROUTINES TO READ IN USER INPUTS FROM     *
C*  THE TERMINAL.  IF THIS IS THE FIRST CALL OF THE LCC:               *
C*    1- PRINT TITLE                                                   *
C*    2- ASK USER WHERE HE WANTS HIS OUTPUT. (PRNTXX=0 TERMINAL ONLY;  *
C*       PRNTXX=1 OFF-LINE ONLY;  PRNTXX=2 BOTH PLACES.)               *
C*    3- ASK USER FOR MIN OR MAX PROMPTING (MAX=LONG PROMPT COMMENTS)  *
C*    4- IF USER REQUEST OFF-LINE OUTPUT, GET A NAME FOR THE RUN.      *
C*  IF THIS IS A SUBSEQUENT CALL FOR THE LCC:                          *
C*    1- NOTIFY USER THAT VARIABLES ARE AS THEY WERE AFTER LAST        *
C*       NAMELISTS WERE SUBMITTED.                                     *
C*    2- ASK USER IF HE WANTS TO REREAD INPUT FILES (RERDXX=1).        *
C*    3- ASK MIN OR MAX PROMPTING ONLY IF LAST RUN WAS MAX PROMPTING.  *
C*    4- ASK USER WHERE HE WANTS HIS OUTPUT. (PRNTXX=0 TERMINAL ONLY;  *
C*       PRNTXX=1 OFF-LINE ONLY; PRNTXX=2 BOTH PLACES)                 *
C*    5- IF USER REQUEST OFF-LINE OUTPUT, GET A NAME FOR THE RUN.      *
C*************************************************************************
C
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /ITERXX/ ITERXX
      COMMON /MAXPMT/ MAXPMT
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /RERDXX/ RERDXX
      INTEGER RERDXX
      COMMON /XTITLE/ XTITLE(30)
      DATA BK/1H /,CHM/1HM/,CHI/1HI/,CHN/1HN/,
     +CHA/1HA/,CHX/1HX/,CHY/1HY/,CHP/1HP/,CHF/1HF/
C
    1 FORMAT(1X/47H STRATEGIC SATELLITE SYSTEM LCC MODEL          )
    2 FORMAT(1X/50H AT THIS POINT, VARIABLE VALUES ARE AS THEY WERE A,
     +13HFTER THE LAST/
     +53H NAMELISTS WERE SUBMITTED.  DO YOU WISH TO RESET NAME,
     +15HLIST GO1 OR GO2/
     +54H VARIABLES TO THE VALUES FOUND IN THE INPUT FILES (Y O,
     +6HR N)-?)
    3 FORMAT(1X/44H MINIMUM OR MAXIMUM PROMPTING (MIN OR MAX)-?)
    4 FORMAT(3A1)
    5 FORMAT(1X/50H SUBMIT 'MIN' OR 'MAX' STARTING IN COLUMN 1.  NOTH,
     +15HING ELSE WORKS.)
    6 FORMAT(30H OUTPUT AT TERMINAL (Y OR N)-?)
    7 FORMAT(A1)
```

```
 8 FORMAT(49H SUBMIT 'Y' OR 'N' STARTING IN COLUMN 1.  NOTHING,
  +12H ELSE WORKS.)
 9 FORMAT(55H OFF-LINE OUTPUT: FULL, PARTIAL, OR NONE (F, P, OR N)-?)
10 FORMAT(29H SUBMIT A TITLE FOR THIS RUN:)
11 FORMAT(30A1)
12 FORMAT(/50H SET EXITXX=1 IN ANY NAMELIST IF YOU WANT TO EXIT.)
13 FORMAT(37H SUBMIT 'F', 'P', OR 'N' IN COLUMN 1.,
  +21H  NOTHING ELSE WORKS.)
C
   IF(ITERXX.NE.1) GO TO 16
     WRITE(6,1)
     GO TO 18
16 CONTINUE
   WRITE(6,2)
   RERDXX=2
   STR1=BK
17 READ(5,7) STR1
   IF(STR1.EQ.CHY) RERDXX=1
   IF(STR1.EQ.CHN) RERDXX=0
   IF(RERDXX.NE.2) GO TO 18
   WRITE(6,8)
   GO TO 17
18 CONTINUE
   IF(ITERXX.GT.1.AND.MAXPMT.NE.1) GO TO 20
     WRITE(6,3)
     MAXPMT=2
19   READ(5,4) STR1,STR2,STR3
     IF(STR1.EQ.CHM.AND.STR2.EQ.CHI.AND.STR3.EQ.CHN) MAXPMT=0
     IF(STR1.EQ.CHM.AND.STR2.EQ.CHA.AND.STR3.EQ.CHX) MAXPMT=1
     IF(MAXPMT.NE.2) GO TO 20
       WRITE(6,5)
       GO TO 19
20 CONTINUE
   MM1=2
   WRITE(6,6)
21 READ(5,7) STR1
   IF(STR1.EQ.CHY) MM1=1
   IF(STR1.EQ.CHN) MM1=0
   IF(MM1.NE.2) GO TO 22
     WRITE(6,8)
     GO TO 21
22 MM2=3
   STR1=BK
   WRITE(6,9)
23 READ(5,7) STR1
   IF(STR1.EQ.CHF) MM2=2
   IF(STR1.EQ.CHP) MM2=1
```

```
      IF(STR1.EQ.CHN) MM2=0
      IF(MM2.NE.3) GO TO 24
        WRITE(6,13)
        GO TO 23
   24 CONTINUE
      IF(MM2.EQ.0) PRNTXX=0
      IF(MM1.EQ.0.AND.MM2.GE.1) PRNTXX=1
      IF(MM1.EQ.1.AND.MM2.GE.1) PRNTXX=2
      FULLXX=0
      IF(MM2.EQ.2) FULLXX=1
      IF(PRNTXX.EQ.0) GO TO 88
        WRITE(6,10)
        READ(5,11) (XTITLE(L),L=1,30)
   88 IF(MAXPMT.EQ.1.OR.ITERXX.EQ.1) WRITE(6,12)
C
      RETURN
      END
```

```
      SUBROUTINE PRMPT2
C                                                              800827 113645395
C*****************************************************************************
C*  SECOND OF THE PROMPTING ROUTINES.  PROMPTS THE USER FOR NAMELIST   *
C*  /GO1/(WHICH CONTAINS ALL A-M VARIABLES FROM     THE INPUT         *
C*  FILES AND ALLOWS THE USER TO OVERRIDE THOSE VALUES IN REAL TIME).  *
C*****************************************************************************
C
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
      COMMON /ITERXX/ ITERXX
      COMMON /MAXPMT/ MAXPMT
      COMMON /RERDXX/ RERDXX
      INTEGER RERDXX
      COMMON /LDERV / LDERV
      COMMON /FINC  / FINC
      COMMON /A/ A(999,4,30)
      INTEGER A
      COMMON /ACPP/ ACPP
      COMMON /AKIT/ AKIT(4,10)
      COMMON /AMPM/ AMPM(10,3)
      COMMON /APFH/ APFH(10,3)
      COMMON /BAA/ BAA
      COMMON /BCMH/ BCMH(999)
      COMMON /BDATA/ BDATA
      INTEGER BDATA
      COMMON /BF/ BF
      COMMON /BIRD/ BIRD
      COMMON /BLR/ BLR
      COMMON /BMF/ BMF
      COMMON /BMH/ BMH(999)
      COMMON /BNOUN/ BNOUN(16,16)
      COMMON /BPLAT/ BPLAT(16)
      INTEGER BPLAT
      COMMON /BRCT/ BRCT
      COMMON /BSP/ BSP(16)
      INTEGER BSP
      COMMON /BTYPE/ BTYPE(16)
      INTEGER BTYPE
      COMMON /CFG/ CFG(3)
      COMMON /COND/ COND(999)
      COMMON /CPD1/ CPD1
      COMMON /CPD2/ CPD2
      COMMON /CPPC/ CPPC
      COMMON /CPPD/ CPPD(3)
      COMMON /CRCT/ CRCT
      COMMON /CSE/ CSE(250)
```

```
      COMMON /DAA/ DAA
      COMMON /DAD/ DAD
      COMMON /DATAB/ DATAB(999)
      INTEGER DATAB
      COMMON /DATAD/ DATAD(999)
      INTEGER DATAD
      COMMON /DATAS/ DATAS(250)
      INTEGER DATAS
      COMMON /DDATA/ DDATA
      INTEGER DDATA
      COMMON /DLR/ DLR
      COMMON /DMF/ DMF
      COMMON /DMH/ DMH(999)
      COMMON /DRAG/ DRAG(10)
      COMMON /DRCT/ DRCT(3)
      COMMON /FGH/ FGH(10)
      COMMON /FPR/ FPR(999)
      COMMON /FR/ FR(3,10)
      COMMON /FSEDC/ FSEDC
      COMMON /GFE/ GFE(999)
      INTEGER GFE
      COMMON /HPD1/ HPD1
      INTEGER HPD1
      COMMON /HPD2/ HPD2
      INTEGER HPD2
      COMMON /I/ I
      COMMON /IMC/ IMC
      REAL IMC
      COMMON /INOUN/ INOUN(999,24)
      REAL INOUN
      COMMON /INTEG/ INTEG(999)
      REAL INTEG
      COMMON /INTNR/ INTNR(10)
      REAL INTNR
      COMMON /INTR/ INTR(10)
      REAL INTR
      COMMON /IPCF/ IPCF(999)
      REAL IPCF
      COMMON /IRMIN/ IRMIN(999,4)
      COMMON /K/ K(10)
      REAL K
      COMMON /KFAC/ KFAC(4)
      REAL KFAC
      COMMON /L/ L
      COMMON /LE/ LE(10)
      COMMON /LFAC/ LFAC(999)
      REAL LFAC
```

```
      COMMON /LO/ LO(16)
      COMMON /LRU/ LRU(999)
      COMMON /MIFIX/ MIFIX(3,10)
      REAL MIFIX
      COMMON /MILR/ MILR(3)
      REAL MILR
      COMMON /MIMH/ MIMH(4,3,10)
      REAL MIMH
      COMMON /MMPD/ MMPD(10,3)
      REAL MMPD
      COMMON /MMPM/ MMPM(10)
      REAL MMPM
      COMMON /MRF/ MRF
      REAL MRF
      COMMON /MRO/ MRO
      REAL MRO
      COMMON /MSE/ MSE(250)
      REAL MSE
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MUSE/ MUSE
      REAL MUSE
C
      NAMELIST /GO1/ EXITXX,A,ACPP,AKIT,AMPM,APFH,BAA,BCMH,BDATA,BF,
     +      BIRD,BLR,BMF,BMH,BNOUN,BPLAT,BRCT,BSP,BTYPE,CFG,COND,CPD1,
     +      CPD2,CPPC,CPPD,CRCT,CSE,DAA,DAD,DATAB,DATAD,DATAS,DDATA,DLR,
     +      DMF,DMH,DRAG,DRCT,FGH,FPR,FR,FSEDC,GFE,HPD1,HPD2,I,IMC,
     +      INOUN,INTEG,INTNR,INTR,IPCF,IRMIN,K,KFAC,L,LE,LFAC,LO,LRU,
     +      MIFIX,MILR,MIMH,MMPD,MMPM,MRF,MRO,MSE,MTBMI,MUSE
C
    1 FORMAT(1X)
    2 FORMAT(52H  NAMELIST /GO1/ CONTAINS ALL VARIABLES FOUND IN THE,
     +13H INPUT FILES /
     +40H  THAT BEGIN WITH THE LETTERS A TO M.    )
    3 FORMAT(53H  AT THIS POINT, NAMELIST /GO1/ VARIABLES CONTAIN VAL,
     +13HUES AS IN THE/
     +14H  INPUT FILES.)
    4 FORMAT(53H  AT THIS POINT, NAMELIST /GO1/ VARIABLES ARE AS THEY,
     +11H WERE AFTER/
     +40H  THE LAST NAMELIST /GO1/ WAS SUBMITTED.)
    5 FORMAT(54H  TO USE THESE VALUES, SUBMIT AN EMPTY NAMELIST /GO1/./
     +50H  TO OVERIDE ANY OF THESE VALUES, SUBMIT A NON-EMP,
     +18HTY NAMELIST /GO1/.)
    6 FORMAT(42H SUBMIT NAMELIST /GO1/ IN NAMELIST FORMAT:)
C
      WRITE(6,1)
      IF(MAXPMT.NE.1) GO TO 30
```

```
      WRITE(6,2)
      IF(ITERXX.EQ.1.OR.RERDXX.EQ.1) WRITE(6,3)
      IF(ITERXX.GT.1.AND.RERDXX.NE.1) WRITE(6,4)
      WRITE(6,5)
   30 WRITE(6,6)
      READ(5,G01)
      IF(EXITXX.EQ.1) RETURN
C
      RETURN
      END
```

```
      SUBROUTINE PRMPT3
C                                                          800827 113650974
C*************************************************************************
C*  THIRD  OF THE PROMPTING ROUTINES.  PROMPTS THE USER FOR NAMELISTS  *
C*  /GO2/(WHICH CONTAINS ALL N-Z VARIABLES FROM     THE INPUT         *
C*  FILES AND ALLOWS THE USER TO OVERRIDE THOSE VALUES IN REAL TIME)   *
C*  AND /SENS/ (WHICH CONTAINS SENSITIVITY ANALYSIS PRINT PARAMETERS). *
C*************************************************************************
C
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
      COMMON /ITERXX/ ITERXX
      COMMON /MAXPMT/ MAXPMT
      COMMON /RERDXX/ RERDXX
      INTEGER RERDXX
      COMMON /LDERV / LDERV
      COMMON /FINC  / FINC
      COMMON /LDCOND/ LDCOND
      COMMON /LDFPR/ LDFPR
      COMMON /LDFR/ LDFR
      COMMON /LDNRTS/ LDNRTS
      COMMON /LDRM/ LDRM
      COMMON /LDRTS/ LDRTS
      COMMON /LDSRU/ LDSRU
      COMMON /LDUP/ LDUP
      COMMON /NAE/ NAE(10)
      REAL NAE
      COMMON /NBC/ NBC(16)
      REAL NBC
      COMMON /NHB/ NHB(16)
      COMMON /NHI/ NHI(999)
      COMMON /NITEM/ NITEM(999,10)
      REAL NITEM
      COMMON /NJA/ NJA(999,4)
      COMMON /NPLT/ NPLT(10,16)
      REAL NPLT
      COMMON /NRM/ NRM(999)
      COMMON /NRMI/ NRMI(10)
      REAL NRMI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /NRUC/ NRUC
      REAL NRUC
      COMMON /NTRMP/ NTRMP(10)
      REAL NTRMP
      COMMON /OST/ OST(3)
      COMMON /OSTC/ OSTC
```

```
COMMON /PA/ PA(999)
COMMON /PAL1/ PAL1
COMMON /PAL2B/ PAL2B
COMMON /PAL2D/ PAL2D
COMMON /PDIV/ PDIV(10)
COMMON /PIUP/ PIUP
COMMON /PMLR/ PMLR
COMMON /PNOUN/ PNOUN(10,12)
COMMON /PTNUM/ PTNUM(999,12)
COMMON /QSA/ QSA(999,4,30)
COMMON /QTYP1/ QTYP1
INTEGER QTYP1
COMMON /QTYP2B/ QTYP2B
INTEGER QTYP2B
COMMON /QTYP2D/ QTYP2D
INTEGER QTYP2D
COMMON /R/ R
INTEGER R
COMMON /RCPP/ RCPP
COMMON /RIP/ RIP(999)
COMMON /RL/ RL(999)
INTEGER RL
COMMON /RM/ RM(999)
COMMON /RMC/ RMC
COMMON /RMH/ RMH(999)
COMMON /RTS/ RTS(999)
COMMON /SA/ SA
COMMON /SEDEV/ SEDEV(250)
COMMON /SENOUN/ SENOUN(250,20)
COMMON /SENUM/ SENUM(250,12)
COMMON /SETYPE/ SETYPE(250)
INTEGER SETYPE
COMMON /SPC1/ SPC1
INTEGER SPC1
COMMON /SPC2/ SPC2
INTEGER SPC2
COMMON /SR/ SR
COMMON /TEFM/ TEFM
COMMON /TFAC/ TFAC(10)
COMMON /THRS/ THRS(10)
COMMON /TIME1/ TIME1(999)
INTEGER TIME1
COMMON /TNB/ TNB(16)
COMMON /TNLR/ TNLR
COMMON /TORB/ TORB
COMMON /TORD/ TORD
COMMON /TR/ TR
```

```
      COMMON /TRAVB/ TRAVB
      COMMON /TRAV1D/ TRAV1D
      COMMON /TYP2TF/ TYP2TF
      COMMON /UCPP/ UCPP
      COMMON /UCTDEV/ UCTDEV(999)
      COMMON /UP/ UP(999)
      COMMON /WT/ WT(999)
      COMMON /XFPR/ XFPR
      COMMON /XFR/ XFR
      COMMON /XMIL/ XMIL
      COMMON /XUC/ XUC
C
      NAMELIST /SENS/ EXITXX,LDERV ,FINC  ,LDCOND,LDFPR ,LDFR  ,LDNRTS,
     +      LDRM  ,LDRTS ,LDSRU ,LDUP
      NAMELIST /GO2/ EXITXX,NAE,NBC,NHB,NHI,NITEM,NJA,NPLT,NRM,NRMI,
     +      NRTS,NRUC,NTRMP,OST,OSTC,PA,PAL1,PAL2B,PAL2D,PDIV,PIUP,PMLR,
     +      PNOUN,PTNUM,QSA,QTYP1,QTYP2B,QTYP2D,R,RCPP,RIP,RL,RM,RMC,
     +      RMH,RTS,SA,SEDEV,SENOUN,SENUM,SETYPE,SPC1,SPC2,SR,TEFM,TFAC,
     +      THRS,TIME1,TNB,TNLR,TORB,TORD,TR,TRAVB,TRAV1D,TYP2TF,UCPP,
     +      UCTDEV,UP,WT,XFPR,XFR,XMIL,XUC
C
    1 FORMAT(1X)
    2 FORMAT(52H  NAMELIST /GO2/ CONTAINS ALL VARIABLES FOUND IN THE,
     +13H INPUT FILES /
     +40H  THAT BEGIN WITH THE LETTERS N TO Z.   )
    3 FORMAT(53H  AT THIS POINT, NAMELIST /GO2/ VARIABLES CONTAIN VAL,
     +13HUES AS IN THE/
     +14H  INPUT FILES.)
    4 FORMAT(53H  AT THIS POINT, NAMELIST /GO2/ VARIABLES ARE AS THEY,
     +11H WERE AFTER/
     +40H  THE LAST NAMELIST /GO2/ WAS SUBMITTED.)
    5 FORMAT(54H  TO USE THESE VALUES, SUBMIT AN EMPTY NAMELIST /GO2/./
     +50H  TO OVERIDE ANY OF THESE VALUES, SUBMIT A NON-EMP,
     +18HTY NAMELIST /GO2/.)
    6 FORMAT(42H SUBMIT NAMELIST /GO2/ IN NAMELIST FORMAT:)
    7 FORMAT(53H  NAMELIST /SENS/ CONTAINS VARIABLES THAT CONTROL THE/
     +53H  DISPLAY OF THE SENSITIVITY ANALYSIS.              )
    8 FORMAT(53H  AT THIS POINT, THE TERMINAL DISPLAYS SENSITIVITY WI,
     +18HTH RESPECT TO ONLY/
     +63H  GLOBAL SENSITIVITY VARIABLES.
     +)
    9 FORMAT(52H  AT THIS POINT, THE TERMINAL SENSITIVITY DISPLAY IS/
     +32H  AS IT WAS ON THE PREVIOUS RUN.)
   10 FORMAT(53H  FOR THE SAME TERMINAL DISPLAY, SUBMIT AN EMPTY NAME,
     +12HLIST /SENS/./
     +54H  FOR A DIFFERENT TERMINAL DISPLAY, SUBMIT A NON-EMPTY,
     +17H NAMELIST /SENS/.)
```

```
   11 FORMAT(43H SUBMIT NAMELIST /SENS/ IN NAMELIST FORMAT:)
C
      WRITE(6,1)
      IF(MAXPMT.NE.1) GO TO 30
        WRITE(6,2)
        IF(ITERXX.EQ.1.OR.RERDXX.EQ.1) WRITE(6,3)
        IF(ITERXX.GT.1.AND.RERDXX.NE.1) WRITE(6,4)
        WRITE(6,5)
   30 WRITE(6,6)
      READ(5,GO2)
      IF(EXITXX.EQ.1) RETURN
      WRITE(6,1)
      IF(MAXPMT.NE.1) GO TO 31
        LDTOT=0+LDFPR +LDSRU +LDFR  +LDUP  +LDCOND+LDNRTS+LDRTS +LDRM
        WRITE(6,7)
        IF(LDTOT.EQ.0) WRITE(6,8)
        IF(LDTOT.NE.0) WRITE(6,9)
        WRITE(6,10)
   31 WRITE(6,11)
      READ(5,SENS)
C
      RETURN
      END
```

```
      SUBROUTINE PRMPT4
C                                                              800827 113653779
C*****************************************************************************
C*  4TH   OF PROMPTING ROUTINES THAT TELLS USER THAT LCC HAS BEEN      *
C*  COMPLETED AND THAT GIVES THE USER A CHANCE TO EXIT.                *
C*****************************************************************************
C
      COMMON /MAXPMT/ MAXPMT
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
C
      DATA ECHAR/1HE/,BK/1H /
C
    2 FORMAT(1X/15H LCC COMPLETED.)
    3 FORMAT(49H IF YOU WISH TO EXIT, HIT -E-, THEN HIT -RETURN-;,
     +12H  OTHERWISE,)
    4 FORMAT(46H ADJUST TERMINAL TO NEW PAGE AND HIT -RETURN-.)
    5 FORMAT(A1)
C
      STR=BK
      WRITE(6,2)
      IF(MAXPMT.EQ.1) WRITE(6,3)
      WRITE(6,4)
      READ(5,5) STR
      IF(STR.EQ.ECHAR) EXITXX=1
C
      RETURN
      END
```

```
      SUBROUTINE PRMPT5
C                                                          800827 113653826
C*************************************************************************
C*  5TH   OF PROMPTING ROUTINES.                                         *
C*                      GIVES THE USER A CHANCE TO EXIT.                 *
C*************************************************************************
C
      COMMON /MAXPMT/ MAXPMT
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
C
      DATA ECHAR/1HE/,BK/1H /
C
    3 FORMAT(49H IF YOU WISH TO EXIT, HIT -E-, THEN HIT -RETURN-;,
     +12H  OTHERWISE,)
    4 FORMAT(46H ADJUST TERMINAL TO NEW PAGE AND HIT -RETURN-.)
    5 FORMAT(A1)
C
      STR=BK
      IF(MAXPMT.EQ.1) WRITE(6,3)
      WRITE(6,4)
      READ(5,5) STR
      IF(STR.EQ.ECHAR) EXITXX=1
C
      RETURN
      END
```

APPENDIX F

RLA PROGRAM FORTRAN SOURCE CODE

```
C*************************************************************************************
C                                                                        800620 115703351
C*************************************************************************************
      COMMON /EXITXX/ EXITXX
      INTEGER EXITXX
      COMMON /ITERXX/ ITERXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /RERDXX/ RERDXX
      INTEGER RERDXX
      COMMON /NERRXX/ NERRXX
      COMMON /NERRYY/ NERRYY
      COMMON /REDOXX/ REDOXX
      INTEGER REDOXX
C
    1 FORMAT(1H1/,22H PROGRAM STOPS DUE TO ,I4,
     +  16H ERRORS ON INPUT)
C
C
C
C
C*************************************************************************************
C*  INITIALIZE SENSITIVITY PRINT PARAMETERS                                          *
C*************************************************************************************
C
      CALL INITAL
      NERRXX=0
      REWIND 11
      REWIND 12
      REWIND 13
      CALL READ1
      CALL READ2
      CALL READ3
      NERRYY=NERRXX
    2 CONTINUE
C
C
C
C*************************************************************************************
C*************************************************************************************
C*  PRINT THE INPUT DATA VALUES.                                                     *
```

```
C*************************************************************************
C
      CALL ITAB1
      CALL ITAB2
      CALL ZTRAN
C
C
C
C*************************************************************************
C*  STOP IF ANY ERRORS WERE FOUND ON INPUT.                              *
C*************************************************************************
C
      NERRXX=NERRYY
      IF(NERRXX.EQ.0) GO TO 4
           WRITE(7,1)NERRXX
        STOP
    4 CONTINUE
C
C
C
C*************************************************************************
C*  LCC CALCULATIONS                                                     *
C*************************************************************************
C
      CALL ZISINO
      CALL INITAX
      CALL STEP0
      CALL STEP1
      CALL STEP2
      CALL STEP3
      CALL STEP4
C
C
C
C*************************************************************************
C
C*************************************************************************
C*  PRINT OUTPUT TABLES AT TERMINAL AND/OR OFFLINE PRINTER               *
C*************************************************************************
C
      CALL OUT9A
      CALL OTAB1
C
C
C
C*************************************************************************
```

```
  888 CONTINUE
C
  999 STOP
C
      END
```

```
      SUBROUTINE READ1
C                                                          800620 115546520
C*************************************************************************
C*  READS THE LRU/SRU CROSS REFERENCE DATA                               *
C*  FILE FROM CHANNEL 11                                                 *
C*************************************************************************
C
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /ISRU/ ISRU(120,30)
      COMMON /MXIL/ MXIL
      COMMON /NDS/ NDS(120)
      COMMON /QPA/ QPA(120,30)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,I2,14(I3,F2.0))
    2 FORMAT(A1,5X,14(I3,F2.0))
    3 FORMAT(A1)
    4 FORMAT(/49H UNIT 11 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXIL=0
      DO 220 IXXX1=1,120
        READ(11, 1) XXCOL1,IL,NDS(IL),(ISRU(IL,K1),QPA(IL,K1),K1=1,14)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXIL=IXXX1
        ILINO(IXXX1)=IL
        J2=14
        J3=14
C
  211    CONTINUE
         IF(.NOT.(NDS(IL).GT.J3.AND.NDS(IL).LE.30)) GO TO 210
           J2=J3+1
           J3=J2+13
           READ(11, 2) XXCOL,(ISRU(IL,K1),QPA(IL,K1),K1=J2,J3)
           IF(XXCOL.NE.XXSTAR) GO TO 211
  210 CONTINUE
  220 CONTINUE
C
```

```
      READ(11, 3) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
        WRITE(7,4)
C
      RETURN
      END
```

```
      SUBROUTINE READ2
C                                                          800620 115551971
C*************************************************************************
C*  READS THE ITEM MAINTENANCE DATA FILE                                 *
C*  FROM CHANNEL 19                                                      *
C*************************************************************************
C
      COMMON /BCMH/ BCMH(999)
      COMMON /BMH/ BMH(999)
      COMMON /COND/ COND(999)
      COMMON /DMH/ DMH(999)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IPCF/ IPCF(999)
      REAL IPCF
      COMMON /LRU/ LRU(999)
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RIP/ RIP(999)
      COMMON /RL/ RL(999)
      INTEGER RL
      COMMON /RMH/ RMH(999)
      COMMON /RTS/ RTS(999)
      COMMON /NERRXX/ NERRXX
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      DATA XXSTAR/1H*/
    1 FORMAT(A1,I3,4F8.0,F4.3,F3.2,F5.2,3F4.3,4F4.2,I1)
    2 FORMAT(A1)
    3 FORMAT(/49H UNIT 13 ERROR:  END OF FILE CARD NOT FOUND AFTER/
     +17X,37HMAXIMUM NUMBER OF CARDS WERE READ IN.)
C
C
      MXI=0
      DO 210 IXXX1=1,999
        LRU(I)=-1
        READ(13, 1) XXCOL1,I,(MTBMI(I,K1),K1=1,4),FPR(I),RIP(I),IPCF(I),
     +    RTS(I),NRTS(I),COND(I),RMH(I),BCMH(I),BMH(I),DMH(I),RL(I)
        IF(XXCOL1.EQ.XXSTAR) RETURN
        MXI=IXXX1
        INO(IXXX1)=I
  210 CONTINUE
C
```

```
      READ(13, 2) XXCOL1
      IF(XXCOL1.EQ.XXSTAR) RETURN
      NERRXX=NERRXX+1
        WRITE(7,3)
C
      RETURN
      END
```

```
      SUBROUTINE READ3
C                                                          800620 115554898
C*************************************************************************
C*  READS THE TIAC(I,6) FILE                                             *
C*  FROM CHANNEL 12                                                      *
C*************************************************************************
C
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /DUMM/ DUMM
      INTEGER DUMM
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXD/ MXD
      COMMON /MXDD/ MXDD
      COMMON /MXI/ MXI
      COMMON /TIAC/ TIAC(999,6)
      INTEGER FINISH
      INTEGER START
      INTEGER XI
    1 FORMAT(I3)
    2 FORMAT(6(I3,1X,F8.1,1X))
    3 FORMAT(A1)
C
C
      MXDD=0
      DO 230 DUMM=1,6
        READ(12, 1) XI
        MXDD=DUMM
        MXD=0
        DO 220 DUM=1,XI,6
          START=DUM
          FINISH=DUM+5
          IF(.NOT.(FINISH.GT.XI)) GO TO 210
            FINISH=XI
  210     CONTINUE
          READ(12, 2) (INO(K1),TIAC(INO(K1),DUMM),K1=START,FINISH)
  220   CONTINUE
        READ(12, 3) XXSIGN
        MXDD=DUMM
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ITAB1
C                                                              800620 115556296
C*****************************************************************************
C*  LRU/SRU CROSS REFERENCE DATA                                             *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /ISRU/ ISRU(120,30)
      COMMON /MXIL/ MXIL
      COMMON /NDS/ NDS(120)
      COMMON /QPA/ QPA(120,30)
      COMMON /XXCOL1/ XXCOL1
      DATA XXSTAR/1H*/
    1 FORMAT(1H1/30X,59HINPUT TABLE 1: LRU/SRU CROSS REFERENCE DATA  (FR
     +OM FILE 8B))
    2 FORMAT(59X,11H(CONTINUED)//)
    3 FORMAT(//9X,4H#SRU,4X,12HSRU    SRU  ,3X,12HSRU    SRU  ,3X,12HSRU
     +    SRU  ,3X,12HSRU    SRU  ,3X,12HSRU    SRU  ,3X,12HSRU    SRU
     +,3X,12HSRU    SRU  /1X,3HLRU,5X,5HTYPES,3X,12HINDEX  QUAN-,3X,12HI
     +NDEX  QUAN-,3X,12HINDEX  QUAN-,3X,12HINDEX  QUAN-,3X,12HINDEX  QUA
     +N-,3X,12HINDEX  QUAN-,3X,12HINDEX  QUAN-/1X,5HINDEX,3X,6HIN LRU,2X
     +,12HNO.    TITY ,3X,12HNO.    TITY ,3X,12HNO.    TITY ,3X,12HNO.
     +  TITY ,3X,12HNO.    TITY ,3X,12HNO.    TITY ,3X,11HNO.    TITY/1X
     +,4H(IL),4X,5H(NDS),3X,12H(ISRU) (QPA),3X,12H(ISRU) (QPA),3X,12H(IS
     +RU) (QPA),3X,12H(ISRU) (QPA),3X,12H(ISRU) (QPA),3X,12H(ISRU) (QPA)
     +,3X,12H(ISRU) (QPA)//)
    4 FORMAT(2X,I3,5X,I3,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3
     +,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0/18X,I3,3X,F4.0,
     +5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F
     +4.0,5X,I3,3X,F4.0)
    5 FORMAT(18X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3
     +,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0/18X,I3,3X,F4.0,
     +5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F4.0,5X,I3,3X,F
     +4.0,5X,I3,3X,F4.0)
C
C
C
C
      IPAGE=40
      IFLAG=1
      DO 240 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
```

```
          IF(.NOT.(IPAGE.EQ.40)) GO TO 220
            WRITE( 7, 1)
            IPAGE=1
            IF(.NOT.(IFLAG.NE.1)) GO TO 210
              WRITE( 7, 2)
  210       CONTINUE
            WRITE( 7, 3)
  220     CONTINUE
          WRITE( 7, 4) IL,NDS(IL),(ISRU(IL,K1),QPA(IL,K1),K1=1,14)
          J2=14
          J3=14
C
  241     CONTINUE
          IF(.NOT.(NDS(IL).GT.J3.AND.NDS(IL).LE.30)) GO TO 230
            J2=J3+1
            J3=J2+13
            WRITE( 7, 5) (ISRU(IL,K1),QPA(IL,K1),K1=J2,J3)
             IF(XXCOL.NE.XXSTAR) GO TO 241
  230     CONTINUE
          IFLAG=0
          IPAGE=IPAGE+1
  240   CONTINUE
C
        RETURN
        END
```

```
      SUBROUTINE ITAB2
C                                                              800620 115602424
C*****************************************************************************
C*  PRINTS ITEM REPAIR-LEVEL-DEVELOPMENT COSTS                               *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /MXI/ MXI
      COMMON /TIAC/ TIAC(999,6)
    1 FORMAT(1H1/38X,50HINPUT TABLE 2: TOTAL ITEM SUPPORT COST - TIAC(I,
     +R)/48X,31H(COSTS IN THOUSANDS OF DOLLARS))
    2 FORMAT(58X,11H(CONTINUED)//)
    3 FORMAT(//49X,31HGLOBAL MAINTENANCE STRATEGY - R/26X,4HITEM,7X,68H-
     +----------------------------------------------------------------
     +-/26X,5HINDEX,9X,1H1,11X,1H2,11X,1H3,11X,1H4,11X,1H5,11X,1H6//)
    4 FORMAT(27X,I3,7X,6(F8.1,4X))
C
C
C
C
      IPAGE=40
      IFLAG=1
      DO 230 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(IPAGE.EQ.40)) GO TO 220
          WRITE( 7, 1)
          IPAGE=1
          IF(.NOT.(IFLAG.NE.1)) GO TO 210
            WRITE( 7, 2)
  210     CONTINUE
          WRITE( 7, 3)
  220   CONTINUE
        WRITE( 7, 4) I,(TIAC(I,K1),K1=1,6)
        IFLAG=0
        IPAGE=IPAGE+1
  230 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE ZTRAN
C                                                              800620 115614729
C*****************************************************************************
C*  CALCULATES NTL(IS),TQPA, AND LRU(I)                                      *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /IS/ IS
      COMMON /ISRU/ ISRU(120,30)
      COMMON /ISXREF/ ISXREF(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /NDL/ NDL(999)
      COMMON /NDS/ NDS(120)
      COMMON /NERRYY/ NERRYY
      COMMON /NTL/ NTL(999)
      COMMON /QPA/ QPA(120,30)
      COMMON /TQPA/ TQPA(999,120)
      INTEGER TQPA
    1 FORMAT(//1X,17H**** ERROR - ITEM ,I3,39H IS LISTED AS BOTH AN LRU A
     +ND AN SRU IN,16H THE QPA MATRIX.)
    2 FORMAT(//1X,17H**** ERROR - ITEM ,I3,39H IS LISTED AS BOTH AN LRU A
     +ND AN SRU IN,16H THE QPA MATRIX.)
C
C
C
      DO 270 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
        IF(.NOT.(LRU(IL).EQ.0)) GO TO 210
        WRITE(7,1)IL
          NERRYY=NERRYY+1
  210   CONTINUE
        IF(.NOT.(LRU(IL).EQ.-1)) GO TO 220
          LRU(IL)=1
  220   CONTINUE
C.......THESE 4 STMTS IMPLEMENT THE POINTER MATRIX
        NXXX1=NDS(IL)
        IF(NXXX1.EQ.0) GO TO 260
        DO 250 JXXX1=1,NXXX1
          IS=ISRU(IL,JXXX1)
          IF(.NOT.(LRU(IS).EQ.1)) GO TO 230
          WRITE(7,2)IS
            NERRYY=NERRYY+1
```

```
  230      CONTINUE
           IF(.NOT.(LRU(IS).EQ.-1)) GO TO 240
             LRU(IS)=0
  240      CONTINUE
           NTL(IS)=NTL(IS)+QPA(IL,JXXX1)
           NDL(IS)=NDL(IS)+1
           TQPA(IS,NDL(IS))=IL
  250    CONTINUE
  260    CONTINUE
  270  CONTINUE
C
       RETURN
       END
```

```
      SUBROUTINE ZISINO
C                                                          800620 115622448
C*************************************************************************
C*  CALCULATES ISINO(999)                                                *
C*************************************************************************
C
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /ISINO/ ISINO(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /MXIS/ MXIS
C
C
      MXIS=0
      DO 220 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(LRU(I).EQ.0)) GO TO 210
          MXIS=MXIS+1
          ISINO(MXIS)=I
  210   CONTINUE
  220 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE INITAX
C                                                              800620 115622777
C*****************************************************************************
C*  INITIALIZES                                                              *
C*****************************************************************************
C
      COMMON /AIAC/ AIAC(999,3)
      COMMON /I/ I
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /INO/ INO(999)
      COMMON /IS/ IS
      COMMON /ISINO/ ISINO(999)
      COMMON /J/ J
      COMMON /LCRL/ LCRL(999)
      COMMON /LCRLS/ LCRLS(120,999)
      COMMON /LCRS/ LCRS(999,3)
      COMMON /MXI/ MXI
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /MXJ/ MXJ
      COMMON /TLAC/ TLAC(120)
      COMMON /TSAC/ TSAC(120,3)
C
C
      DO 230 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
        TLAC(IL)=0.
        DO 210 IXXX2=1,MXIS
          IS=ISINO(IXXX2)
          LCRLS(IL,IS)=0
  210   CONTINUE
        DO 220 J=1,MXJ
          TSAC(IL,J)=0.
  220   CONTINUE
C
  230 CONTINUE
      DO 250 IXXX1=1,MXIS
        IS=ISINO(IXXX1)
        DO 240 J=1,MXJ
          AIAC(IS,J)=0.
          LCRS(IS,J)=0
C
  240   CONTINUE
  250 CONTINUE
```

```
      DO 260 IXXX1=1,MXI
        I=INO(IXXX1)
        LCRL(I)=0
  260 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE STEPO
C                                                                  800620 115623469
C*****************************************************************************
C*  SETS SOME LCRL'S                                                         *
C*****************************************************************************
C
      COMMON /COND/ COND(999)
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /IS/ IS
      COMMON /ISINO/ ISINO(999)
      COMMON /ISRU/ ISRU(120,30)
      COMMON /ISXREF/ ISXREF(999)
      COMMON /LCRL/ LCRL(999)
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /NDS/ NDS(120)
C
C
      DO 240 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
        IF(.NOT.(COND(IL).EQ.1)) GO TO 230
          LCRL(IL)=3
C.....THESE 4 STMTS IMPLEMENT THE POINTER MATRIX
          NXXX1=NDS(IL)
          IF(NXXX1.EQ.0) GO TO 220
          DO 210 JXXX1=1,NXXX1
            IS=ISRU(IL,JXXX1)
            LCRL(IS)=3
  210     CONTINUE
  220     CONTINUE
  230   CONTINUE
  240 CONTINUE
      DO 260 IXXX1=1,MXIS
        IS=ISINO(IXXX1)
        IF(.NOT.(COND(IS).EQ.1)) GO TO 250
          LCRL(IS)=3
  250   CONTINUE
  260 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE STEP1
C                                                          800620 115627248
C*************************************************************************
C*  CALCULATES TSAC(IS,J) AND LCRS(IS,J)                                 *
C*************************************************************************
C
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /IS/ IS
      COMMON /ISINO/ ISINO(999)
      COMMON /LCRS/ LCRS(999,3)
      COMMON /LRU/ LRU(999)
      COMMON /MXD/ MXD
      COMMON /MXIS/ MXIS
      COMMON /TIAC/ TIAC(999,6)
      COMMON /TSAC/ TSAC(120,3)
C
C
      DO 260 IXXX1=1,MXIS
        IS=ISINO(IXXX1)
        TSAC(IS,1)=AMIN1(TIAC(IS,1),TIAC(IS,2),TIAC(IS,3))
        TSAC(IS,2)=AMIN1(TIAC(IS,4),TIAC(IS,5))
        TSAC(IS,3)=TIAC(IS,6)
        IF(.NOT.(LRU(IS).EQ.0)) GO TO 250
          DO 220 DUM=1,3
            IF(.NOT.(TIAC(IS,DUM).EQ.TSAC(IS,1))) GO TO 210
              LCRS(IS,1)=DUM
  210       CONTINUE
  220     CONTINUE
          DO 240 DUM=4,5
            IF(.NOT.(TIAC(IS,DUM).EQ.TSAC(IS,2))) GO TO 230
              LCRS(IS,2)=DUM
  230       CONTINUE
  240     CONTINUE
          LCRS(IS,3)=6
  250   CONTINUE
  260 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE STEP2
C                                                              800620 115632728
C*****************************************************************************
C*  CALCULATES TSAC(IL,J) AND TLAC(IL)                                       *
C*****************************************************************************
C
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /IS/ IS
      COMMON /ISRU/ ISRU(120,30)
      COMMON /ISXREF/ ISXREF(999)
      COMMON /J/ J
      COMMON /LCRS/ LCRS(999,3)
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /MXJ/ MXJ
      COMMON /NDS/ NDS(120)
      COMMON /NTL/ NTL(999)
      COMMON /QPA/ QPA(120,30)
      COMMON /TLAC/ TLAC(120)
      COMMON /TSAC/ TSAC(120,3)
      COMMON /TIAC/ TIAC(999,6)
C
      DO 240 J=1,MXJ
        DO 230 IXXX2=1,MXIL
          IL=ILINO(IXXX2)
C.....THESE 4 STMTS IMPLEMENT THE POINTER MATRIX
          NXXX1=NDS(IL)
          IF(NXXX1.EQ.0) GO TO 220
          DO 210 JXXX1=1,NXXX1
            IS=ISRU(IL,JXXX1)
            TSAC(IL,J)=TSAC(IL,J)+(TSAC(IS,J)*QPA(IL,JXXX1)/NTL(IS))
     +        +(TIAC(IL,LCRS(IS,J))/NDS(IL))
  210     CONTINUE
          GO TO 230
  220     CONTINUE
         IF(J.EQ.1) K1=1
         IF(J.NE.1) K1=2*J
         TSAC(IL,J)=TIAC(IL,K1)
  230   CONTINUE
  240 CONTINUE
      DO 250 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
        TLAC(IL)=AMIN1(TSAC(IL,1),TSAC(IL,2),TSAC(IL,3))
  250 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE STEP3
C                                                              800620 115636632
C*****************************************************************************
C*  CALCULATES LCRL(IL) AND LCRS(IL,IS)                                      *
C*****************************************************************************
C
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /IS/ IS
      COMMON /ISINO/ ISINO(999)
      COMMON /ISRU/ ISRU(120,30)
      COMMON /J/ J
      COMMON /LCRL/ LCRL(999)
      COMMON /LCRLS/ LCRLS(120,999)
      COMMON /LCRS/ LCRS(999,3)
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /MXJ/ MXJ
      COMMON /NDS/ NDS(120)
      COMMON /TLAC/ TLAC(120)
      COMMON /TSAC/ TSAC(120,3)
C
C
      DO 230 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
        DO 220 J=1,MXJ
          IF(.NOT.((TSAC(IL,J).EQ.TLAC(IL)).AND.(LCRL(IL).EQ.
     +      0))) GO TO 210
            LCRL(IL)=J
  210     CONTINUE
  220   CONTINUE
  230 CONTINUE
      DO 280 IXXX1=1,MXIL
        IL=ILINO(IXXX1)
C.......THESE 4 STATEMENTS IMPLEMENT THE POINTER MATRIX
        NXXX1=NDS(IL)
        IF(NXXX1.EQ.0) GO TO 275
        DO 270 IXXX2=1,NXXX1
          IS=ISRU(IL,IXXX2)
          IF(.NOT.(LCRS(IS,LCRL(IL)).EQ.1)) GO TO 240
            LCRLS(IL,IS)=1
  240     CONTINUE
          IF(.NOT.((LCRS(IS,LCRL(IL)).EQ.3).OR.(LCRS(IS,LCRL(IL)).EQ.
     +      5).OR.(LCRS(IS,LCRL(IL)).EQ.6))) GO TO 260
            LCRLS(IL,IS)=3
  260     CONTINUE
```

```
            IF(.NOT.((LCRS(IS,LCRL(IL)).EQ.2).OR.(LCRS(IS,LCRL(IL)).EQ.
     +        4))) GO TO 250
              LCRLS(IL,IS)=2
  250       CONTINUE
  270     CONTINUE
  275     CONTINUE
  280   CONTINUE
C
        RETURN
        END
```

```
      SUBROUTINE STEP4
C                                                                  800620 115640822
C*****************************************************************************
C*  CALCULATES LCRL(I)                                                       *
C*****************************************************************************
C
      COMMON /AIAC/ AIAC(999,3)
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /ILXREF/ ILXREF(120)
      COMMON /IS/ IS
      COMMON /ISINO/ ISINO(999)
      COMMON /ISRU/ ISRU(120,30)
      COMMON /ISXREF/ ISXREF(999)
      COMMON /LCRL/ LCRL(999)
      COMMON /LCRLS/ LCRLS(120,999)
      COMMON /MXD/ MXD
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /NDL/ NDL(999)
      COMMON /NDS/ NDS(120)
      COMMON /NTL/ NTL(999)
      COMMON /QPA/ QPA(120,30)
      COMMON /TIAC/ TIAC(999,6)
      COMMON /TQPA/ TQPA(999,120)
      INTEGER TQPA
      INTEGER COUNT
      INTEGER R2
      INTEGER TEST1
      INTEGER TEST1A
      INTEGER TEST1B
      INTEGER TEST2
      INTEGER TEST3
      INTEGER TEST4
      INTEGER TEMP
C
      DO 250 DUM=2,3
        DO 240 IXXX2=1,MXIL
          IL=ILINO(IXXX2)
          R2=DUM
          IF(.NOT.(LCRL(IL).EQ.2)) GO TO 210
            R2=R2+2
  210     CONTINUE
C.....THESE 4 STMTS IMPLEMENT THE POINTER MATRIX
          NXXX1=NDS(IL)
```

```
            IF(NXXX1.EQ.0) GO TO 230
            DO 220 JXXX1=1,NXXX1
              IS=ISRU(IL,JXXX1)
              AIAC(IS,DUM)=AIAC(IS,DUM)+TIAC(IS,R2)*QPA(IL,JXXX1)/NTL(IS)
  220       CONTINUE
  230       CONTINUE
  240     CONTINUE
  250   CONTINUE
        DO 430 IXXX1=1,MXIS
        TEST1=0
        TEST1A=1
        TEST1B=1
        TEST2=0
        TEST3=0
        TEST4=0
          IS=ISINO(IXXX1)
          COUNT=0
          IF(.NOT.(NDL(IS).GT.1)) GO TO 310
            TEST1A=0
C.....THESE 4 STMTS IMPLEMENT THE POINTER MATRIX
            NXXX1=NTL(IS)
            IF(NXXX1.EQ.0) GO TO 300
            DO 290 JXXX1=1,NXXX1
              IL=TQPA(IS,JXXX1)
              COUNT=COUNT+1
              IF(.NOT.(COUNT.EQ.1)) GO TO 260
                TEMP=LCRLS(IL,IS)
  260         CONTINUE
              IF(.NOT.((COUNT.GT.1).AND.(TEST1B.EQ.1))) GO TO 280
                IF(.NOT.(LCRLS(IL,IS).NE.TEMP)) GO TO 270
                  TEST1B=0
  270           CONTINUE
                TEMP=LCRLS(IL,IS)
  280         CONTINUE
  290       CONTINUE
  300       CONTINUE
  310     CONTINUE
          IF(.NOT.(NDL(IS).EQ.1)) GO TO 311
            IL=TQPA(IS,1)
            TEMP=LCRLS(IL,IS)
  311     CONTINUE
          IF(.NOT.((TEST1A.EQ.1).OR.(TEST1B.EQ.1))) GO TO 320
            TEST1=1
  320     CONTINUE
          IF(.NOT.((TEST1A.EQ.0).AND.(TEST1B.EQ.0))) GO TO 360
C.....THESE 4 STMTS IMPLEMENT THE POINTER MATRIX
          NXXX1=NTL(IS)
```

```
          IF(NXXX1.EQ.0) GO TO 350
          DO 340 JXXX1=1,NXXX1
            IL=TQPA(IS,JXXX1)
            IF(.NOT.(LCRL(IL).EQ.3)) GO TO 330
              TEST2=1
  330       CONTINUE
  340     CONTINUE
  350     CONTINUE
  360   CONTINUE
        IF(.NOT.(((TEST1A.EQ.0).AND.(TEST1B.EQ.0)).AND.(TEST2.EQ.
     +    0))) GO TO 390
          IF(.NOT.(AIAC(IS,3).LE.AIAC(IS,2))) GO TO 370
            TEST3=1
  370     CONTINUE
          IF(.NOT.(TEST3.EQ.0)) GO TO 380
            TEST4=1
  380     CONTINUE
  390   CONTINUE
        IF(.NOT.((TEST1.EQ.1).AND.(LCRL(IS).EQ.0))) GO TO 400
          LCRL(IS)=TEMP
  400   CONTINUE
        IF(.NOT.(((TEST2.EQ.1).OR.(TEST3.EQ.1)).AND.(LCRL(IS).EQ.
     +    0))) GO TO 410
          LCRL(IS)=3
  410   CONTINUE
        IF(.NOT.((TEST4.EQ.1).AND.(LCRL(IS).EQ.0))) GO TO 420
          LCRL(IS)=2
  420   CONTINUE
  430 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE OUT9A
C                                                                  800620 115652880
C*****************************************************************************
C*  WRITES THE ITEM MAINTENANCE DATA FILE                                    *
C*  TO CHANNEL 14                                                            *
C*****************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /BCMH/ BCMH(999)
      COMMON /BMH/ BMH(999)
      COMMON /COND/ COND(999)
      COMMON /DMH/ DMH(999)
      COMMON /FPR/ FPR(999)
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /IPCF/ IPCF(999)
      REAL IPCF
      COMMON /LCRL/ LCRL(999)
      COMMON /MTBMI/ MTBMI(999,4)
      REAL MTBMI
      COMMON /MXI/ MXI
      COMMON /NRTS/ NRTS(999)
      REAL NRTS
      COMMON /RIP/ RIP(999)
      COMMON /RMH/ RMH(999)
      COMMON /RTS/ RTS(999)
    1 FORMAT(1H ,I3,4I8,I4,I3,I5,3I4,4I4,I1)
    2 FORMAT(1H*)
C
C
C
C
      DO 210 IXXX1=1,MXI
        I=INO(IXXX1)
        I1=MTBMI(I,1)
        I2=MTBMI(I,2)
        I3=MTBMI(I,3)
        I4=MTBMI(I,4)
        I5=INT(FPR(I)*1000+.99)
        I6=INT(RIP(I)*100+.99)
        I7=INT(IPCF(I)*100+.99)
        I8=INT(RTS(I)*1000+.99)
        I9=INT(NRTS(I)*1000+.99)
        I10=INT(COND(I)*1000+.99)
```

```
          I11=INT(RMH(I)*100+.99)
          I12=INT(BCMH(I)*100+.99)
          I13=INT(BMH(I)*100+.99)
          I14=INT(DMH(I)*100+.99)
         WRITE(14, 1) I,I1,I2,I3,I4,I5,I6,I7,I8,I9,I10,I11,I12,I13,
        +I14,LCRL(I)
  210 CONTINUE
      WRITE(14, 2)
C
      RETURN
      END
```

```
      SUBROUTINE OTAB1
C                                                              800620 115655511
C*************************************************************************
C*  REPAIR LEVEL ANALYSIS                                                *
C*************************************************************************
C
      COMMON /PRNTXX/ PRNTXX
      INTEGER PRNTXX
      COMMON /FULLXX/ FULLXX
      INTEGER FULLXX
      COMMON /I/ I
      COMMON /INO/ INO(999)
      COMMON /LCRL/ LCRL(999)
      COMMON /LRU/ LRU(999)
      COMMON /MXI/ MXI
      COMMON /RL/ RL(999)
      INTEGER RL
      DATA XXBL/1H /
      DATA XXSTAR/1H*/
    1 FORMAT(1H1/46X,37HOUTPUT TABLE 1: REPAIR LEVEL ANALYSIS)
    2 FORMAT(59X,11H(CONTINUED))
    3 FORMAT(//40X,7HLRU (1),9X,17HREPAIR LEVEL - RL,10X,7HRESULTS/29X,4
     +HITEM,7X,2HOR,11X,24H------------------------,6X,10HDIFF. FROM/29X
     +,5HINDEX,6X,7HSRU (0),6X,4HBASE,4X,5HDEPOT,4X,7HDISCARD,6X,16HCONT
     +RACTOR INPUT/30X,3H(I),20X,3H(1),6X,3H(2),7X,3H(3))
    4 FORMAT(30X,I3,9X,I1,11X,A1,8X,A1,9X,A1,16X,A1)
C
C
C
C
      IPAGE=40
      IFLAG=1
      XXR=XXBL
      XXB=XXBL
      XXF=XXBL
      XXD=XXBL
      DO 270 IXXX1=1,MXI
        I=INO(IXXX1)
        IF(.NOT.(RL(I).NE.LCRL(I))) GO TO 210
          XXR=XXSTAR
  210   CONTINUE
        IF(.NOT.(LCRL(I).EQ.1)) GO TO 220
          XXB=XXSTAR
  220   CONTINUE
        IF(.NOT.(LCRL(I).EQ.2)) GO TO 230
          XXD=XXSTAR
  230   CONTINUE
```

```
      IF(.NOT.(LCRL(I).EQ.3)) GO TO 240
        XXF=XXSTAR
  240 CONTINUE
      IF(.NOT.(IPAGE.EQ.40)) GO TO 260
        WRITE( 7, 1)
        IPAGE=1
        IF(.NOT.(IFLAG.NE.1)) GO TO 250
          WRITE( 7, 2)
  250   CONTINUE
        WRITE( 7, 3)
  260 CONTINUE
      WRITE( 7, 4) I,LRU(I),XXB,XXD,XXF,XXR
      IFLAG=0
      IPAGE=IPAGE+1
      XXR=XXBL
      XXB=XXBL
      XXF=XXBL
      XXD=XXBL
  270 CONTINUE
C
      RETURN
      END
```

```
      SUBROUTINE INITAL
C                                                          800620 115702567
C.....INITIALIZES VARIABLES TO DEFAULT VALUES.
C
      COMMON /NTABXX/ NTABXX
      COMMON /NERRXX/ NERRXX
      COMMON /DINO/ DINO(6)
      INTEGER DINO
      COMMON /DIXREF/ DIXREF(1)
      INTEGER DIXREF
      COMMON /DUINO/ DUINO(6)
      INTEGER DUINO
      COMMON /DUM/ DUM
      INTEGER DUM
      COMMON /DUMM/ DUMM
      INTEGER DUMM
      COMMON /DXREF/ DXREF(1)
      INTEGER DXREF
      COMMON /I/ I
      COMMON /IL/ IL
      COMMON /ILINO/ ILINO(120)
      COMMON /ILXREF/ ILXREF(120)
      COMMON /INO/ INO(999)
      COMMON /IS/ IS
      COMMON /ISINO/ ISINO(999)
      COMMON /ISRU/ ISRU(120,30)
      COMMON /ISXREF/ ISXREF(999)
      COMMON /IXREF/ IXREF(999)
      COMMON /J/ J
      COMMON /JINO/ JINO(3)
      COMMON /JXREF/ JXREF(1)
      COMMON /MXD/ MXD
      COMMON /MXDD/ MXDD
      COMMON /MXI/ MXI
      COMMON /MXIL/ MXIL
      COMMON /MXIS/ MXIS
      COMMON /MXJ/ MXJ
      COMMON /NDS/ NDS(120)
      COMMON /NTL/ NTL(999)
      COMMON /QPA/ QPA(120,30)
      COMMON /TPA/ TPA(999,120)
      COMMON /TQPA/ TQPA(999,120)
      INTEGER TQPA
C
      NTABXX=0
      NERRXX=0
C
```

```
      DO     10 DUMM=1,6
        DINO(DUMM)=DUMM
   10 CONTINUE
C
      MXI=999
      MXJ=3
      MXD=6
      MXIL=120
      MXIS=999
      MXDD=6
C
      DO     30 DUM=1,6
        DUINO(DUM)=DUM
   30 CONTINUE
C
      DO     40 IXXX1=1,1
        DXREF(IXXX1)=IXXX1
        DIXREF(IXXX1)=IXXX1
        JXREF(IXXX1)=IXXX1
   40 CONTINUE
C
      DO     50 I=1,999
        INO(I)=I
   50 CONTINUE
C
      DO     60 IL=1,120
        NDS(IL)=0
        DO     60 IXXX=1,30
          ISRU(IL,IXXX)=0
          QPA(IL,IXXX)=0.00000
   60 CONTINUE
C
      DO     70 IS=1,999
        NTL(IS)=0
        DO     70 IXXX=1,120
          TQPA(IS,IXXX)=0
          TPA(IS,IXXX)=0.00000
   70 CONTINUE
C
      DO     80 IL=1,120
        ILINO(IL)=IL
   80 CONTINUE
C
      DO     90 IXXX1=1,999
        IXREF(IXXX1)=IXXX1
        ISXREF(IXXX1)=IXXX1
   90 CONTINUE
```

```
C
      DO   100 IS=1,999
        ISINO(IS)=IS
  100 CONTINUE
C
      DO   110 IXXX1=1,120
        ILXREF(IXXX1)=IXXX1
  110 CONTINUE
C
      DO   120 J=1,3
        JINO(J)=J
  120 CONTINUE
C
      RETURN
      END
```